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THE SPHERE, SEPTEMBER 20, 1941
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THE SPHERE

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WITH WHICH IS INCORPORATED THE GRAPHIC
SEPTEMBER 20 1941

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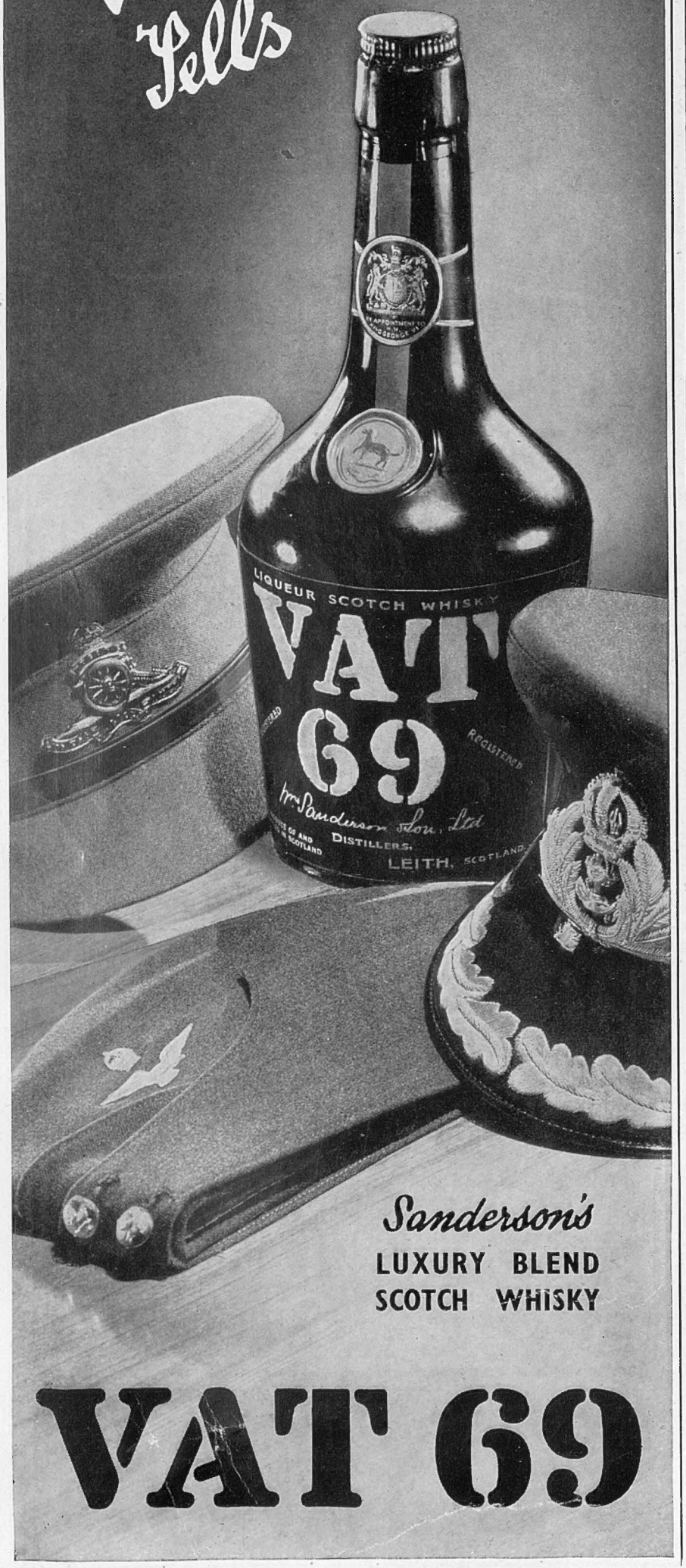

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THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly
London, September 20, 1941

IN THE DEFENCE OF LENINGRAD: THE SOVIET EMPLOYS A POWERFUL NEW WEAPON TO BREAK UP ATTACKS ON ITS NORTHERN CAPITAL—ONE OF THE ARMOURED TRAINS WHICH HAVE JUST MADE THEIR APPEARANCE AROUND THE CITY

Latest reports from the Eastern war front have told of some of the Red Army's "secret weapons" which are only now beginning to appear. One of these is a 64-ton tank which has been reported in action on the central front with Marshal Timoshenko's armies; another is the Armoured Train, of which a number are being used in the defence of the city of Leningrad. These "battleships on rails" have been smashing up Panzer columns which had penetrated to the outer defences, and they have also been driving deep into German-held territory. The trains are armed with heavy guns in swivelling turrets for smashing the enemy's concentrations, as well as with multiple machine-guns for beating off aerial attacks. So far, they have proved very successful. The picture we reproduce here shows one of these armoured trains on its way up to the front line near Leningrad

Postage—Inland, 2d.; Canada and Newfoundland, 1½d.; Elsewhere Abroad, 2d.

A WAR NEWSLETTER —No. 107

1, NEW OXFORD STREET, W.C.1.

Mr. Mackenzie King.—For a statesman who for long years has been appreciated at his full worth by the chief statesmen of Britain and America, Mr. Mackenzie King's attributes have remained remarkably unknown to the general public in England. That fact is one article in the condemnation of the British attitude of mind in the years between wars. A study of the leading personalities in the great Dominions should have been a prime duty of all thinking Englishmen. As a fact, only General Smuts was recognised for what he is before 1941, and that is accounted for by the length of his service to the Empire and by the wisdom of his pronouncements during and after the first Great War. Mr. Mackenzie King awoke on September 5, 1941, in London and "found himself famous." Late in the day, because we have for some time appreciated the extent of Canada's vast war effort, and that effort points to Mr. King's high merits. Late in the day, for his statesmanship has long been proved and he has made many great speeches. That which he delivered on September 4 at the Lord Mayor's banquet in his honour was a masterly performance, alike in clarity, vision, force and directness. It is odd in a way that Mr. Churchill admitted that Mr. King crossed t's and dotted i's with a bluntness which he himself dared not employ. It is strange that at this eleventh hour in the crisis of Democracy and Freedom, the leader of Britain dare not tell publicly to the leader of the U.S. the blunt truth, as Britain sees it, though he must surely have made it plain enough during the three days of intimate talks in the Atlantic. The truth, as Britain sees it, and as Mr. King clearly put it, is this: If the menace of Hitlerism is to be destroyed before our civilisation, which is fast breaking up, is to be totally and irreparably destroyed, if the battle for Freedom is to be won while there are still in existence nations capable of making good use of the victory, then those nations which outside the conflict stand for freedom, must quit the fence of paper neutrality and must themselves join in the conflict and wield the weapons they forge. We can no longer afford to say to America: "Give us the tools and we will finish the job." How we ever ventured to promise that at a time when 7,000,000 well-armed and courageous Russians were not only not *with* us, but might well have come in against us, is one of those mysteries of blind faith or bare cheek concerning which it is not safe even to speculate!

The Right Note.—The Premier, as he usually does, struck the right note in his first report to Parliament on the recent conduct of the war, when the House met again. What line did he take? He faced the hard facts and held back none of the bull points. He allowed a measured optimism to shine through the grim realism of what lies round us and before us. We are, I believe, a great people, worthy of the trust of our leaders. Mr. Churchill, almost alone of Government and official speakers, seems to recognise this fact and to treat us with the dignity and candour and faith which we have surely begun to deserve. Recalling (once more) that (in one of their pendulum swings to the sky) Government speakers were in May of this year confident that we should lick the Nazis with American help (and with no notion of Russian help), I do indeed feel that Mr. Churchill deemed us sober and sane enough as a nation to drink (without becoming intoxicated) such heady liquor as this: that the Germans had lost in Russia 1,500,000 men in three months, and that in the Battle of the Atlantic the Nazis had in July and August taken

AFTER A RAID ON GERMANY, A DAMAGED BRITISH BOMBER LANDS IN A PLANTATION

Returning from a raid over Germany, an aircraft of the R.A.F. Bomber Command was attacked by a Messerschmitt 109. Although most of the instruments were shot away in the subsequent battle, the pilot, an Australian, managed to fly his aircraft to within five miles of his station before the petrol supply ran out. He gave orders to the crew to bale out, and five of them landed safely. The aircraft was then so low that the pilot himself was unable to escape. He thereupon landed the bomber in a ride in a thickly-wooded plantation. Later he and the crew had a reunion in the mess at the station—all safe!

a toll of our shipping only one-third of that which we had taken of Axis shipping, the Allied target being ten times larger or more vulnerable. Such facts are champagne indeed. The Premier ordered champagne for us. It remains to see how soon and in what quantities his understrappers will begin to serve out the corrective Seidlitz. In my view, our heads and stomachs are strong enough to drink the wine without the correctives. Even crews in training for a big regatta are given an occasional champagne binge. It is a necessary part of their grim preparation for the maximum effort.

Axis Shipping.—The nature of the shipping of which our submarines in the Mediterranean have recently taken such a heavy toll gives a hint of enemy intentions. The enemy is well aware of the risks of any and every route from the mainland or Sicily to Libya or Cyrenaica, and would assuredly not employ large liners for supply routine or for any other purpose than the transportation of new units in preparation for a new winter campaign against Egypt (or perhaps south and west?). The normal feeding of the existing forces opposed to our garrison in Egypt and Tobruk in drafts and material would be satisfied with the use of smaller vessels. Whatever the dictator of Germany and Italy designs to do, his efforts have clearly been slowed up by our recent successes with the submarine arm, and he is finding it increasingly hard and more terribly expensive even to serve his communications with his existing Libyan forces. The bulk of these shipping losses falls, of course, on Italy, whose mercantile marine must be shrinking, as her Navy has shrunk, and still shrinks, to the point of acute anxiety. *Mare nostrum*, the Duce must soon admit, looks rather like *Mare Vestrum*. It is indeed significant for the Battle of Britain that in recent months the Axis has lost—and not proportionately to admitted tonnage owned—more than they have sunk of Allied tonnage.

They that Take the Sword.—Is it indeed true that a new generation of Germans has already begun to learn the lesson which their fathers learned (and allowed the children to forget), that war doesn't pay, and that those who take the sword will perish by the sword? Reports from the Ruhr, from Cologne, from Berlin, Kiel and Hamburg are coming along now, not so very long after our redoubled assault on Germany from the air began, which confirm and justify this belief. If it be true, our policy—that hateful necessity—is having early justification. Hitler was, and broadly still is, their god. He is (or was) the god of victory and wisdom. Yet every new aggression of his seemed even to his mind-enslaved worshippers to bear a little less logic, a little less justice, a little more risk on its face. Until the Russian. Then the logic and justice and wisdom began to bulk in question, and the risks to loom insistent. Why Russia? Was it merely to justify a best-seller and a young man's hasty *credo* that Hitler took this mad risk with the lives of his worshippers, or was it lust for blood irrepressible by a man struck down in madness? Anyway, it brings on the Ruhr and the capital and the ports sleepless nights, terror and devastation and agony of spirit—justifiable where those horrors fell on Britain or Poland, Holland or Czechoslovakia, but now, when it falls on the god of victory's worshippers, crying out for explanation. Whatever the god of victory may say, the Russian aggression brings to Berlin terror from two fronts. And it is only the beginning. . . . Will another generation of Germans forget the lesson? Lord Vansittart says "*Yes*," though we educate them in war and in peace. What other course is open to us but to educate them—in war and in peace?

Ladies Old and Great.—Mrs. Roosevelt, the President's mother, was one of those grand old ladies whose long lives and well-preserved faculties dignify and beautify civilised life the world over. At the time of her last trip to England, when she visited Queen Mary, the public heard a good deal about her, and all they heard convinced them that she was a worthy mother of a great son, and had been a mighty influence in the making of his character, and that she was indeed one of those rare and beautiful natures which reveal the capabilities of the spirit of mankind. *Si jeunesse savait, si vieillesse pouvait*, is the heart-cry of ordinary folk. In these rare instances the powers of youth to act and to think in terms of changing conditions survive for an ideal marriage of activity with wide and profound experience. Rare such natures are. Instances depend on abnormal health, on calm temperament, on the successful avoidance of the normal risks and accidents of human life. Above all, on religious faith and the highest standards of conduct and sense of duty, and, we may surely add, on abounding love. For such grand old ladies and grand old men, one often feels that, once past their eightieth year, nothing but accident need put *finis* to the charm and beauty and inspiration of their service to mankind. We all have instances—not many—in our minds of such old men and ladies among our relations and acquaintances, and we none of us underrate the influence which they have shed on our own lives and characters. Many of us would say that the beauty of womanhood is at no age more outstanding, both physically and morally, than in such a woman who has passed her eightieth year.

Glen Affric—A Gleam of Sanity.—The Glen Affric power scheme has been turned down uncompromisingly in the Commons—as expected of late; its promoters accept defeat for the duration, and scores of lawyers, business men and others may now turn to more urgent matters. In my earlier notice I tried to present the case judicially, and I succeeded, apparently. Anyway, I received one or two abusive letters from enemies of the scheme. I am, of course, myself an uncompromising enemy of that particular scheme and have regarded its consideration at this critical time as a thing that could happen in no other country in Europe. It is probably true also that in no other country to-day could a water-power scheme be promoted as a private venture, and its issue be decided by a free vote and largely on reasons of pure sentiment and on a nice calculation of the relative profits from the scheme likely to accrue to promoters and to the local inhabitants respectively. Sentiment was certainly a deciding factor, and sentiment is sometimes hard-headed common sense. The public in the fog of war suddenly saw a gleam through the mist and looked into the future. For two generations we have carelessly suffered, unchecked by any controlling authority, the greed and shrewdness of private capitalism to wreck, destroy and vulgarise the peace and beauty of our heritage. For two generations we have worshipped the Moloch of scientific invention. In the last two years the necessities of war have carried on the work at treble the speed. All England is being converted into workshops, factory towns, aerodromes and all the things which increase the racket, the ugliness, the complication of life. Suddenly, the nation as a whole saw into the future and realised how vital will be the need for some few last havens of peace, last strongholds of nature and simplicity, last refuges from noise and ceaseless grinding of the gears of industry, of places where war-worn minds can commune in silence and reform their plans for living and recollect their philosophies of existence. We stuck our toes in at last and held up the tide of invasion from one of our last Everests—for the duration. In a word, sanity broke in. That is rare enough, in wartime.

THE OLD STAGER

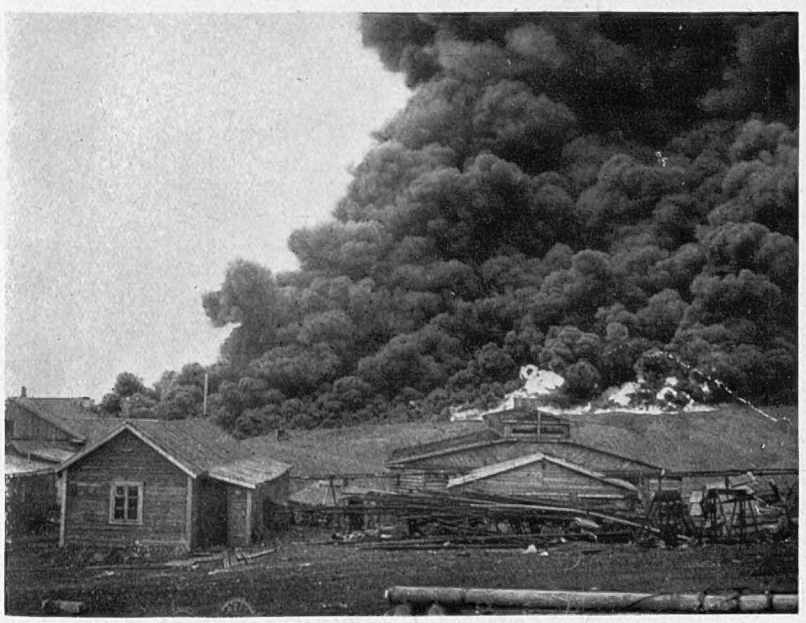
THE SPITZBERGEN RAID

Told in a Complete Series of Official Pictures (See also following pages)

THE COMMANDER OF THE LAND FORCES AT A NORWEGIAN SETTLEMENT ON SPITZBERGEN : Brigadier Arthur E. Potts, of Saskatoon (who commanded the Canadians), with Major Geoffrey Walsh, of Oakville, Ontario (Commander of the R.C.E. Field Company), outside the chapel where an Allied Church Parade was held

UP GOES THE RADIO STATION AT BARENTSBERG : The wireless stations on Spitzbergen had been kept going to the last, sending messages to Germany

NORWEGIANS ON SPITZBERGEN READY TO BOARD A SHIP FOR BRITAIN : Some 700 of them were brought off; in addition 1,600 Russians were also removed

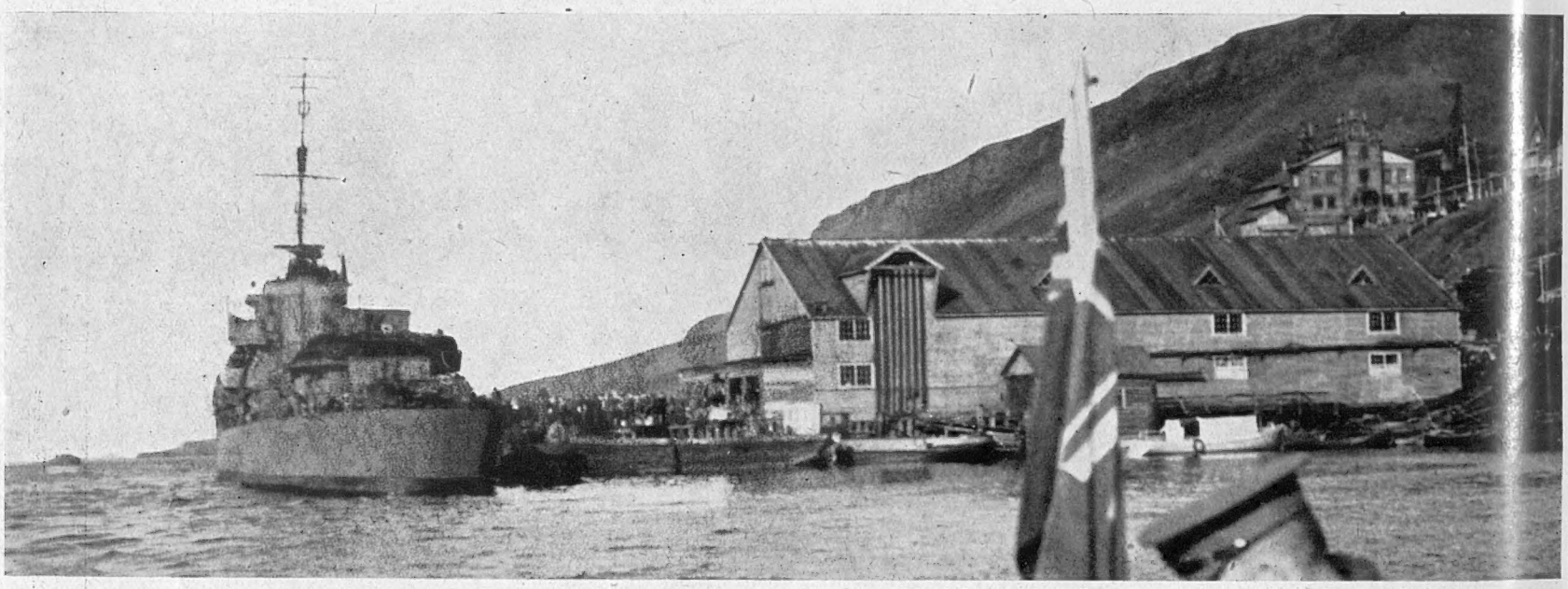


OIL DUMPS BURNING AT BARENTSBERG : An impressive picture which indicates the extent of the havoc wrought by the Allied forces before departure

BURNING OIL AND COAL DUMPS AS THE FORCE LEFT SPITZBERGEN : No one now remains on Spitzbergen and its utility to Germany has been rendered nil

The DRAMATIC SEIZURE of SPITZBERGEN: *A Series of British Official Pictures*

SPITZBERGEN ABLAZE AS THE CANADIAN TROOPS LEFT: The burning coal dumps as seen from the air after 150,000 tons were burnt to prevent the Germans using it. Everything of value to the enemy's war effort was destroyed, and fires were blazing long after the Canadians had sailed away for Britain



A BRITISH DESTROYER ALONGSIDE A JETTY: A formidable flotilla of Royal Navy warships and detachments of British and Norwegian troops supported the Canadians

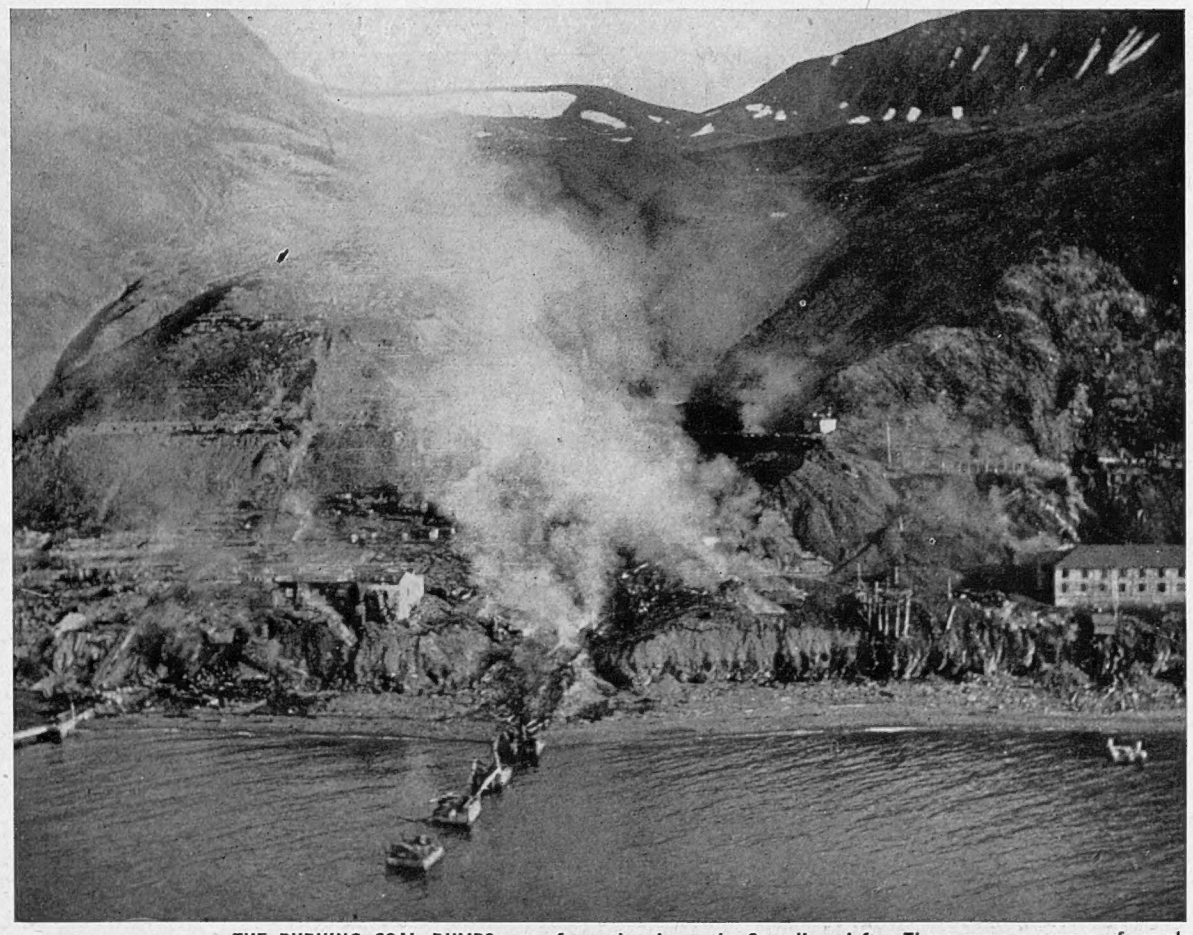
THE SCENE AT BARENTSBERG, IN SPITZBERGEN: A Canadian guard waiting outside the Communal Building whilst the Brigadier explained his mission to the Chief Commissioner in the Council Chamber

NORWEGIANS, WITH THEIR LUGGAGE, WAITING TO BE TAKEN OFF: Nearly 700 Norwegians—men, women and children, some of them whole families—were brought back to England for work here

Spitzbergen, in its relation to Norway and to Great Britain

The imposing flotilla which carried out the destruction of the installations at Spitzbergen reached there at about 6 a.m. after a destroyer and aircraft of the Fleet Air Arm had reconnoitred ahead. Loaded into small boats, with Bren guns in the bows, the Canadians, armed to the teeth, were ready for a fight, but Norwegians rushed out of their shacks to greet them warmly and invite them to occupy the wireless station.

As the troops, in leather jerkins, steel helmets and battle kit, climbed up the stairs to the centre of the community, miners touched their hats and grinned. The commander, wearing a British warm and his red-banded Staff officer's cap and carrying a swagger stick returned the salute of the labour men. The main purpose of the landing was to prevent the enemy from utilising, for their own war purposes, Spitzbergen with its coal mines. Previously, a portion of the Spitzbergen coal has been at the disposal of the population of Northern Norway. But it has become known that the enemy's plan was to seize all coal available, including that of Spitzbergen, which could be used mainly for war transport to the far north. This source of fuel has now been denied to the Germans. An immediate result of the Spitzbergen landing is that a considerable number of Norwegian miners, with their families, have now arrived in Great Britain to play their part in the Allied war effort here. Most of them will be joining the Norwegian forces or the Norwegian Merchant Service



THE BURNING COAL DUMPS, seen from the air as the Canadians left : These were a source of supply for the Germans. It will take a very long time before Spitzbergen will again be of use to the enemy!

IN THE COUNCIL CHAMBER AT BARENTSBERG. ***From left to right*****— The Resident Commissar, Brigadier Potts and the Russian representative from London signing the Agreement of Evacuation**

ONE OF THE FIRST THINGS DONE WAS TO SMASH A RADIO STATION : The Canadian commander of a Signals Detachment and two of his N.C.O.s in the station, which was later destroyed

CANADIAN TROOPS EMBARKING IN THEIR BOATS after the successful termination of operations at Spitzbergen. The land forces in the expedition were under the command of Brigadier A. E. Potts, of the Canadian Army

INHABITANTS, HELPED BY CANADIAN SOLDIERS, GATHERING THEIR BELONGINGS on the jetty before going on board for transference to Britain

Front turret with guns with wide angle of fire ↓ ↓ *Pilot's position* ↓ *Wireless mast* ↓ *Two of the four huge engines* ↓

↑ *Bomb-aimer's position in nose* ↑ *Huge tyres on retractable wheels* ↑

BRITAIN'S GROWING MIGHT IN THE AIR

is Exemplified by this Picture of

The NEW HALIFAX HEAVY BOMBER of the R.A.F.

—An Official Air Ministry Photograph Just Released for Publication

In the recent reports issued by the Air Ministry concerning bombing operations over Germany, the names of many new aircraft are now appearing—Stirlings, Manchesters, Halifaxes, Flying Fortresses and others. Pictures of some of these have already been published ; and above we are enabled to reproduce a special picture of the newest of all—the Halifax Heavy Bomber, which is now being turned out in considerable numbers by the Handley Page Company, prominent since the last war for their heavy aircraft, including the famous Hampden. No performance figures have been released yet, but the Halifax has been playing its part in recent raids calling for endurance, long range and heavy bomb-loads.

The Halifax is, as the above picture admirably demonstrates, an all-metal mid-wing monoplane : its wing span is 99 ft., its length 70 ft., and its height 22 ft. It is powered with four Rolls-Royce Merlins—these are 12-cylinder, liquid-cooled engines ; and they drive huge three-bladed airscrews. The fuselage is rectangular : the bomb-aimer is placed right forward in the nose, under the forward turret. The outward appearance of the nose is such as to suggest a double turret ! The pilot's cockpit is forward of the engines ; and the top line of the fuselage runs straight from cabin to tail. On the underside of the aircraft the line is curved up from a point behind the main plane. The crew have easy access to the tail.

The Halifax has many special features : amongst these are a heavy defensive armament ; slotted flaps for improved take-off ; a good heating system for the cabin ; de-icing equipment for the tail unit and also for the airscrews

INTERNMENT IN MANXLAND—WITHOUT TEARS

A Full Account of the Present-day Life of the Internees on the Isle of Man. Written from First-hand Knowledge Gained During an Actual Visit Paid There a Few Days Ago

By FERDINAND TUOHY

STEAMING away from Douglas, I caught sight of the worst civilian internment camp to which we can plead guilty. And the bad thing about it was just this: it consisted of a row of boarding-houses fronting the promenade, and as the internees—Italians—lounged to and fro behind the barbed wire, they were altogether too much exposed to view. There was a suggestion of the Mappin Terraces. The promenade of a holiday resort is, indeed, the very last place, with its feminine company passing directly under the internees' gaze.

But let me add that originally the greater part of the vast crescent front was occupied by similar boarding-house camps, that only two now remain, and that shortly the occupants of these will be transferred to the environs of Douglas. On the steamer I thought of this elimination of the final "blot," and wished some of our intellectual sentimentalists who clamour about internment had been on my tour, which penetrated places the casual observer had not viewed before, including a day in the women's camp. I feel sure that on leaving the Isle of Man they would have reacted much as I did. They would have thought of Dachau and Buchenwald, of all the terrible internment camps round Europe, of Gurs, Argelès, and unknown Spanish, Balkan and Polish horrors. They 'd have pictured French captives being driven out of their minds by blaring, all-day Nazi propaganda. And then they 'd have switched in the mind to what is nothing else, by comparison, than a haven of peace, comfort and no small amenity — Manx internment without tears, or with very few.

Our real mistake, in respect of enemy and other aliens, was not that we herded them of a sudden into internment in May 1940 with little or no preparation made to receive them, but that in the previous eight months we didn't take them half seriously enough, though why not, considering the ideological prologue to this war, I always failed to grasp. When the towering danger called "Dunkirk" loomed, it was belatedly appreciated by Home and War Offices combined that there was a small army of men and women at large in Britain who had at the least been approached by Nazi and Fascist organisations and had, in many cases, become affiliated to them. Put yourself back into the flurry, the feeling of live peril of those days, with immediate "invasion" written all over them. What was wrong in taking sweeping measures even if they did entail unfair or temporary captivity for a high percentage? The blunder was pre-Dunkirk, not *post*. We should have operated drastically in September 1939 and thereafter begun to sift our company.

Well, to-day the sifting approaches its end. Of 22,000 foreign civilians all told who were affected, 16,000 have been released, and one's current preoccupation is that we may once again incur unnecessary risk, this time by shipping too many internees back to freedom in the British mainland, which may yet be thrown into confusion by Nazi operations, and where we want not one potential saboteur or enemy agent who can humanely be weeded out beforehand. The tribunals sitting daily in Douglas are making a most conscientious job of it. A session may develop into an intricate international political discussion as an internee seeks to explain why he and she held such an opinion at such and such a time and has since changed it. The C class, or least-suspect cases, has been released in mass, and now the B class, Germans, Italians, Czechs and oddments, is being weeded through. The A class, whose inquisitor has been Sir Norman Birkett, contains the really tough birds, but one has to be mighty careful even with the B's.

What, for example, if Hitler falls but the war is carried on by the German General Staff? X is liberated because he makes out a case that he is anti-Nazi. But would he be against a return of the old German military caste? This argument, I understand, kept a notorious alien in internment, and it is a good sign.

About 6,000 internees, men, women and children, are still on the Isle of Man, and you will be surprised to learn that, parallel to their decrease by liberation, others are arriving back from Canada and even Australia, to each of which we shipped A and B cases last year. Neither Dominion wishes to set up tribunals, and so each is returning likely cases for consideration in Douglas.

In the morning you may see a happy little party of liberated ones marching towards the mail boat, some to join the Pioneers, others to help the war effort as they are best suited to do, others, again, just to slip back into their pre-internment way of life. In the evening along the same quay may march a less blithe body of human flotsam arriving back from Canada.

Internees are distributed at Ramsey, Germans; Douglas, mainly Italians, some Germans; Peel, British Fascists; Port St. Mary, joint married camp; Port Erin, women. One day several hundred Italians were changed from Douglas promenade to Onchan, a hill suburb above the bay. I watched them getting fixed in their new quarters—a big square of boarding-houses with a good recreation field—and what I saw can be taken as typical of all male camps. They quickly set to turning the basements into communal offices and stores, chalking up in Italian: Bank, Barber, Gymnasium, Newspaper, Library, Hygiene, School (commercial, technical, languages), Laundry, Tailor, Sports, Canteen, Club, Church, Headquarters. But for (a somewhat attenuated) loss of freedom and the overriding masculinity—big "buts" admittedly—theirs was a case of safety amid plenty, with a beauty of land- and seascape bringing much solace after cell life. Solace, too, in outings to the cinema in town, in football and other games, in weekly visits from relatives and friends, in walks abroad under slender guard, in work on the farms and for firms on the Island.

I could think of only one other camp in all Europe as holding a candle to these Manx affairs: the British retreat in the Italian hills, yet the kindliest Italian gaolers couldn't give our fellows this daily dietary:—

Bread, 12 ozs.; Flour, 2 ozs.; Meat (5 days a week), 4 ozs.; Fish (2 days a week), 10 ozs.; Margarine, 6/7ths oz.; Tea, 2/7ths oz.; or Coffee, ¾ oz.; Sugar, 1 1/7th oz.; Milk, ½ pint; Oatmeal, 2 ozs.; Jam, 2 ozs.; Macaroni or Spaghetti, ½ oz.; Potatoes, 14 ozs.; Rice or Beans or Split Peas, 1 oz.; Fresh Vegetables (Greens), 2 ozs.; Root, 2 ozs.; Cheese (2 days a week), 1 oz.; Mustard, Salt and Pepper.

If I were interned I should work every time on the land, not only for extra bread and cheese and a wage of a bob or two a day, but because it gets you away from barbed wire. The Italians wave cheerily from the fields. *Finita la guerra* for them, *é come!* Yet too many still lounge about all day behind the wire. Those who earn money—as by watch- and clock-mending for the Island—must put a goodly portion to a welfare fund out of which the destitute are helped, and books, musical instruments and newspapers bought. Each camp has its newspaper, beyond which only the British Press is allowed. Nor is any wireless permitted.

A young Rhenish painter acquaintance, who has been freed to join the Pioneers, edited his camp newspaper and also made rugs, fashioned *objets divers*, and painted. He brought £17 away after a year during which his chief worry was steering clear of Nazi bullies. This he did in some degree by conversing with kindred spirits in Rhenish dialect. Conversation by signs is common, but is not recommended to outsiders.

Just now there 's local agitation for stricter control of the camps. There are stories of internees on outside work eluding their guards to keep "dates," and complaints that visitors send abnormal quantities of food and smokes into the camps. A witness at Peel said he saw twelve chickens and a whole side of bacon go into the British camp. But local shopkeepers say they can't tell when an English woman purchaser is stocking Fascists, and that, anyway, the law allows all unrationed food to go into the camps.

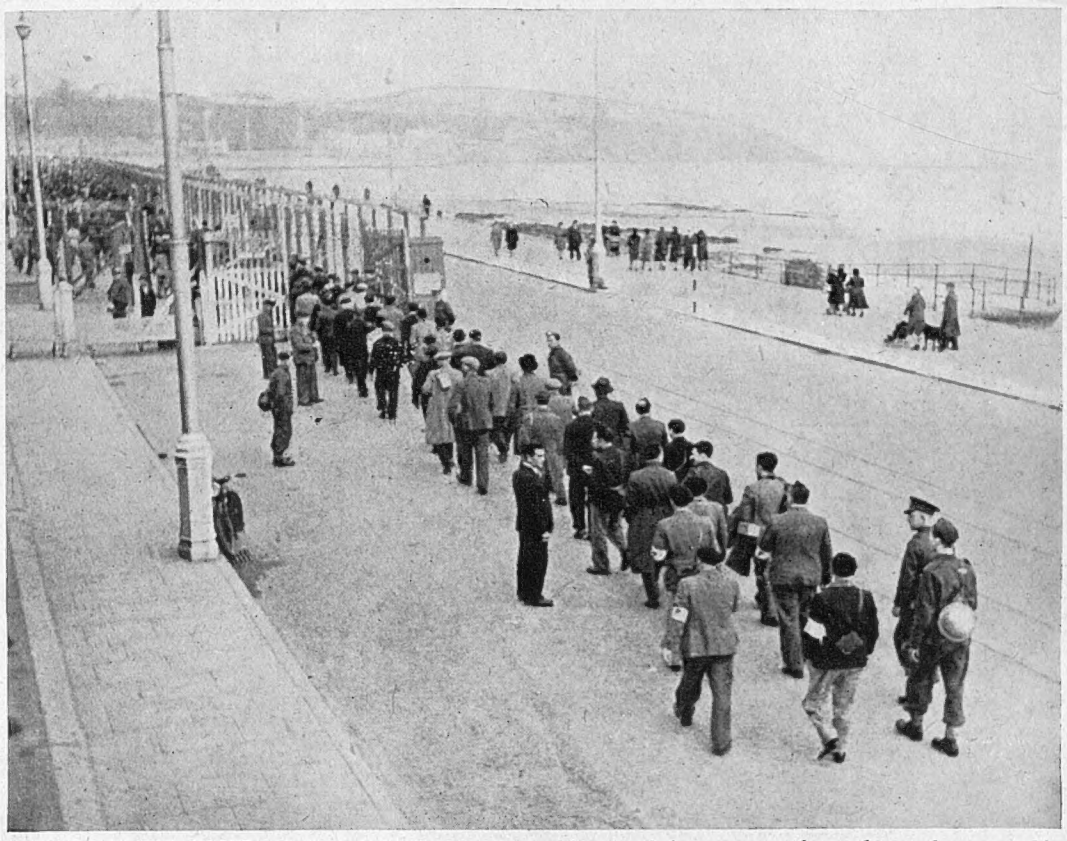
I fell among British Fascists in a railway coach when they were returning from work. Rather, they barged in on me, twenty strong, and started ragging. Was I a Commissar? (Yes, the hair was decidedly Russian!) What a strange collection they were, not more than one in three bred in these Islands. Italian- and German-born are included in the British Camp if they've been members of Mosley's B.U.F. About four were artisan class, the rest seemed public school. Beards were plentiful. At railhead they marched away whistling what we know as the "Red Flag." This camp includes a former London Mayor and an ex-police inspector.

What, I wondered, lay ahead for the British-born. If we won, should we simply put them back into circulation? If Germany won, would they be exterminated locally, or would they rise to lord it over us? One suggestion was that a victory clause should impose them for their natural lives upon the ex-Axis countries of their yearning.

At the southern end of the Island are the Married Camp and the Women's Camp, about 400 in the first and 1,400 in the second. The scenery instantly recalled Brittany looking good. The marrieds at St. Mary's are a successful experiment of Inspector Cuthbert's of Scotland Yard. Several nationalities commingle, children are to the fore, and also Jewry. Living in family reunion, inability to move about is the principal, if not the only serious, drawback. Their maintenance paid for, splendidly fed and able to work—there you have the marrieds, far away from the rotten *Blitz* and queues. On two afternoons a week, when they do their shopping, Port St. Mary is kept clear of outsiders.

The Women's Camp, a mile away at lovely Port Erin, includes children up to sixteen, but the absence of husbands subtracts from the fuller realisation that St. Mary's is. On the other hand, the women have the little port entirely to themselves and there is no feeling of being wired in. I had the odd experience of swimming among the women internees when both sides obediently maintained silence. Afterwards one mingled with the women in the afternoon shopping hour when trousers for fat fräuleins were the unlovely vogue. The women draw five shillings pocket money a week for films, sweets and cigarettes, but they are also given a porportion of what they earn from sewing and farm work, domestic service and odd jobs like painting.

Port Erin is cliquy and segregated—Aryan and non-Aryan, "upper" and domestic class. Some Nazi women, usually in the thirties, try to boss it and shove their ideas down others' throats. But a check is kept on this sort of thing by the new Assistant-Commandant, Miss Wilson, who runs the show aided by a few women police. Some internees are taken each week to visit their husbands in other parts of the Island. For the rest, the women do not organise communal amenities like the men.



ON THE PEACEFUL ISLAND: Internees in Manxland returning to their camp on the seafront after a weekly visit to the cinema. Military officials check their numbers as the men pass through the barricades

A BARRIER TO THE EASTWARD PENETRATION OF THE NAZIS—The new defensive line, held by British and Russian forces: this runs continuously from Tobruk, through Palestine and Syria, to Iraq and Iran, and then on to the Caspian Sea

In his recent review of the war position in the House of Commons, the Prime Minister referred to the Allied front which "now runs in an immense crescent from Spitzbergen in the Arctic Ocean to Tobruk in the Western Desert." The above map shows the southward portion of this "immense crescent," which finally bars any enemy advance to the oil-bearing regions of Iraq and Iran and to the great peninsula of India. Bit by bit the line has been built up, with new sections strengthening the old. First came the checking of the threat to Egypt and the formation of the great defensive bastion of Tobruk which now serves as the south-ward tip of the "crescent." Then, linking up with Egypt and Palestine, came Iraq; then Syria; and now Iran. So that from Tobruk to the Caspian there is now a continuous and united front to check Nazi penetration into the heart of the Middle East. The advantages of this new strategic line are enormous, and not the least of these is the new supply line into Russia which has been created by the British and Russian control of Iran

The NEW STRATEGIC LINE

From Tobruk to the Caspian British and Russian Forces Confront the Germans and Italians

ON Monday, August 25, British forces, under the command of Lieut.-General Edward Pellew Quinan, C.B., D.S.O., advanced into Iran from the south and west simultaneously with a joint advance from the north on the part of our Russian ally. Rarely on the widespread chess-board of the war has a movement of troops had such ramifying results. Previous moves which might appear on the surface as isolated incidents fell into place as a connected whole, or rather in this case one would describe it as a connected line or frontier, facing the enemy for 1,500 miles. A glance at the map will show the extraordinary nature of the change which this joint advance into Iran has wrought in an area extending from Tobruk on the west to the Caspian on the north-east. Tobruk, on the edge of the Libyan desert, now appears as a strong bastion at the end of a fortified wall.

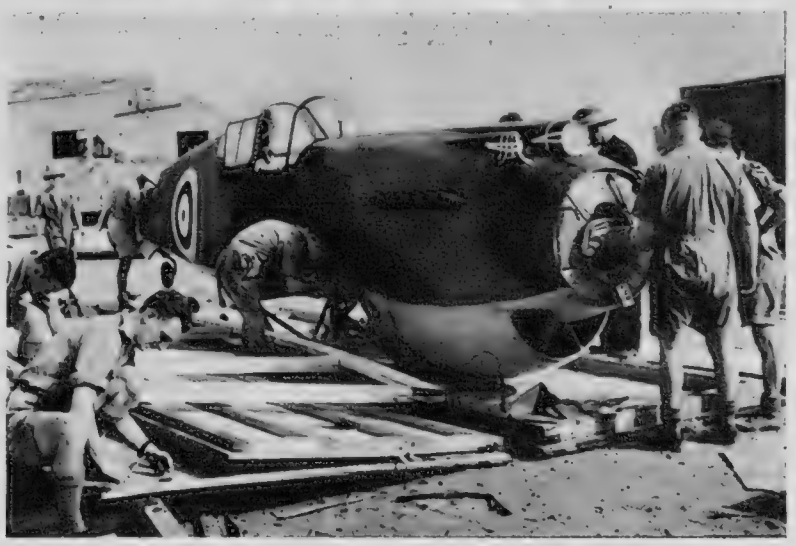
Proceeding eastwards there is the fluid force of the British Army in front of Sollum. The operation which ended on June 17, which compelled the Germans to dig in at Sollum, strengthened this portion of the wall. Further east there is the obvious naval bastion of Alexandria, and Suez, with the Italian power in Abyssinia brought to naught.

The next portion of the wall is garrisoned by the Palestinian forces who, in addition to guarding this area, had on May 2 to advance north-eastward into Iraq, which seemed at the moment to form an isolated frontier. Soon, however, events in Syria compelled an advance towards Damascus and Beyrout. The wall was linked from Tobruk to Mosul, and there it would seem one field of operations came to an end.

But not for long did this state of affairs continue. Enemy penetration in Iran, under the camouflage of tourist and technician, grew to such military significance that the joint Russo-British advance already referred to, was rendered necessary if the enemy's underground operations were to be checked. It was then that the study of the map of the Near and Middle East showed that a series of operations forced upon the Allies by the enemies' own penetrative operations had brought about a strategic line of the highest military significance.

The formation of this last part of the line took place in a brief and satisfactory campaign, starting on August 25. A British military force landed at Bandar Shapar at the head of the Persian Gulf assisted by a naval force. The main object of gaining the oil areas of Naft-i-Shah, Khorramshah and Abadan was rapidly obtained, by surprise movements which took the Iranians quite unprepared. Another force marched from Iraq and took Kermanshah, moving northwards along the Hamadan road, known to many British military officers on previous campaigns, under Generals Dunsterville and Townsend. Resistance from Iranian troops lasted only three days, and was never more than half-hearted. There was a cheerful acceptance of the order from the Shah to "cease fire," indeed the Iranian troops soon dispersed. The British are now assisting the Iranian generals in gathering these forces together again as they are needed for general security. From the North the Russian army took Tabriz, and Pahlevi on the Caspian Sea, and then marched southward to link up with their British allies at Kasvin. The Russians are now occupying northern Iran and the whole of the Caspian coast, while the British are holding the south-west with the oil-bearing districts. The railway line from the Persian Gulf will now be able to carry supplies right into Russia.

SUPPLIES FROM AMERICA ARE NOW POURING INTO THE MIDDLE EAST—a large consignment of trucks and cars landed on the quayside in crates



HOW THE TOMAHAWK AIRCRAFT FROM THE UNITED STATES ARRIVE IN SECTIONS, for assembly by the R.A.F. in the Middle East: One result of the vastly improved situation in the Middle East is that shipments from the United States can now reach our forces direct by American vessels, as the Red Sea is no longer regarded as a "combat zone." Supplies are now arriving in great numbers

A VITAL SUPPLY BASE

The Shatt-el-Arab, which Now Assumes an Added Significance in View of Our Occupation of Iraq and Iran

THE Shatt-el-Arab is the name given to the wide waterway formed by the junction of the two famous rivers, the Tigris and the Euphrates. It runs from Qurun to the Persian Gulf, a broad, shining stream, and is now a water highway of the utmost importance in the strategic defence scheme which has just taken fuller and more definite shape. Brig.-General Sir Percy Sykes, in his very comprehensive volume, *Ten Thousand Miles in Persia*, thus describes the Shatt: "It is," he says, "the beau-ideal of a fine river, about a mile in width at its mouth and lined with a dense growth of palms which might entitle Basra to be called the City of Dates, as well as the Venice of the East. After steaming slowly up this mighty body of water for forty miles, we anchored opposite the point where the river Karun, its chief tributary, falls on off Muhammarah."

At this point Brig.-General Sykes turned northward to explore the Karun River, the only navigable stream in the whole of Iran. It has its source in the Bakhtiarri Mountains. Palm groves

THE ENTRY INTO THE OIL-BEARING REGIONS—the splendid Eastern river system known as the Shatt-el-Arab, which will now become a vital supply base for the British forces in Iraq and Iran; it will also serve as the point of entry for supplies for Russia from the United States and Britain

THE RAILWAY BRIDGE OVER THE KARUN RIVER: This river is Iran's only navigable stream. It joins the Shatt-el Arab near Muhammarah. Near the town of Ahwaz the railway to Teheran crosses the Karun on this wide viaduct: it will now witness the passage of quantities of material destined for our Russian allies. This material will enter Iran at the southern railhead, traverse the whole country from south to north, and then enter Russia by way of the Caucasus and the Caspian

extend along the river for some miles and then cease—bare and mountainous country succeeding. The river is extremely tortuous, but at last one reaches Ahwaz, having navigated 170 miles of river, the distance being rather less than 80 miles by land. The journey was continued as far as Shuster, a famous site known to history and legend as Shushan.

Returning to the Shatt-el-Arab, Brig.-General Sykes set out for Basra: "We saw the right bank of the river lined almost entirely by the substantial houses of the British firms and the Consulate, the town itself lying up a somewhat narrow creek, while the left bank is unoccupied. Basra is not an ideal place of residence; between every house is a creek, necessitating the use of a raft, locally called a bellam."

Striking as the Shatt-el-Arab is to the eye of the stranger as he views it from the deck of a steamer, the captain on the bridge does not always share his appreciation, for sandbanks are apt to appear in unexpected spots at short notice.

Drawing by William McDowell

A SCENE ON THE SHATT-EL-ARAB, the broad Mesopotamian stream formed by the junction of the Rivers Tigris and Euphrates: Big vessels of from 6,000 to 7,000 tons can sail straight up to Basra, many miles from the Persian Gulf. Basra, in recent years, has grown enormously as a port, both in size and in efficiency. The local boats on the Shatt-el-Arab have characteristic curved bows of picturesque form which suggests a very remote origin. This region must be known to many thousands of Englishmen who took part in the last war, as it was one of the principal entrances to the Mesopotamian battlefield

THE HAMADAN ROAD

Once Again Figuring in the News from Iran, this Road was the Scene of Extraordinary Exploits by "Dunsterforce" in 1918

THE Hamadan Road, along which the British forces now occupying certain parts of Iran advanced, was the scene of one of the most remarkable episodes during the latter part of the Great War 1914-18. Towards the end of 1917, a number of officers, carefully selected for various qualifications, had been assembled at Bagdad, together with a certain number of specially selected N.C.O.s. They were to operate under the command of Major-General L. C. Dunsterville, C.B. (the "Stalky" of Kipling's famous story), and were destined to take part in the extraordinary operations of the "Dunster Force," the adventures of which were recorded by Major-General Dunsterville in a volume which makes informative and fascinating reading to-day.

The leader of the Dunster Force points out that when, with the advent of the Bolsheviks to power in November 1917, the Russian troops in North Persia began to break away, it became obvious that a gap of some 450 miles would be left open on the right flank of the British Mesopotamian army, through which Turkish and German agents and troops could flood Central Asia unopposed. It was therefore determined to send a mission to Tiflis, with a body of selected officers who would gather together a sufficient number of fighting men from the local inhabitants, who would be disposed to defend their own homes, and from Russian Army stragglers, sufficient to form a defensive line across a vital stretch of country. But this scheme did not eventuate. The atmosphere of revolution seemed to have dissolved local patriotic courage, and the one idea of the Russian soldiery was to get back to their native districts. Though the Tiflis scheme failed, says the author, he is able to claim that "by a kind of moral camouflage, the original first party of twelve officers and 41 men filled the gap left in North Persia by the evacuating Russians on 300 miles of road, and entirely checked all enemy enterprise on this line, though hampered by the threatening hostility of the neutral Persians."

At 7 a.m. on January 27, 1918, the party of 11 officers and 2 sergeant clerks and 41 lorry-drivers started out from Bagdad and reached Khanikin, 94 miles away, without excessive delay. Sixty-one miles farther on the village of Pai-tac was reached—the fine weather changing to a violent gale with sleet. There was a steep ascent up the face of a cliff to the pass, where snow was encountered. The rate of progress here was about a mile per hour. Signs of famine were first observed here. Karind was duly reached and the party pressed on across a flat-bottomed valley typical of this part of Iran, usually a sea of mud and in wet weather an impassable obstacle. Two Kuban Cossacks appeared outside Kermanshah to guide the party to their billets. They belonged to the friendly Russian force under the command of Colonel Bicherakos, a remarkable figure, who kept his Cossack force intact during the dissolution of the Russian Army. On February 4 the party started for Hamadan, but so difficult did the first pass prove that the cars were held up for several days, and a similar delay occurred at the Sultanbulak Pass. At last, on February 15, Kasvin was reached, where the party experienced the effects of the Bolshevik Revolution for the first time. Mirza Kuchik Khan, the leader of a local body of Persian patriots, was working with the Bolshevik committee at Enzeli, on the Caspian. He avowed that he would not let the British through.

All along this portion of the road crowds of retreating Russian troops wending their way northwards had been passed. They were curious as to the objects of the British force. They had made peace with Germany, they said, and it was evident that no volunteers would be forthcoming for the Dunster Force in this direction. When it had become obvious that nothing could be accomplished at Tiflis, the attention of the Dunster Force was directed towards Baku, where the local Bolshevik leaders were disposed to offer resistance to intrusion into their country by the Turks or Germans. The former was the more immediate possibility. The Dunster Force therefore pressed on through the fertile region south of the Caspian to Enzeli, from which port it was hoped to get in touch with the Baku leaders. Although everything was being conducted by committee, very definite objection to the British Mission's presence was shown by the and his Cossacks. The menace of Persian patriots had been warded off, and at last a definite invitation from Baku arrived requesting help from the Dunster Force. A second advance was made to Enzeli under completely different conditions, all local opposition melting away in face of the considerable British force which appeared at the port. Three vessels were secured for the transference of the Dunster Force to Baku. On arrival Major-General Dunsterville was enabled to study at first hand revolution rule by committee.

The opening days of August 1918 found a British force actually holding positions on the hills outside Baku in the endeavour to check a large Turkish force which had as its objective the capture of the town—the assistance of a trained military body was naturally desirable when so many of the new officers of the local Baku forces were inexperienced. But that did not mean that the entire population welcomed the presence of "Imperialist forces" in their midst, and the situation developing demanded an youthful Bolshevik triumvirate at the moment controlling affairs in the Enzeli district. A very delicate situation developed, but when the precious petrol supplies were obtained General Dunsterville succeeded in extricating his force and returning to Hamadan, which became his headquarters for some time to come.

Very severe famine conditions revealed themselves as the leader and his officers became more closely acquainted with the conditions of the country. Efforts to relieve this state of affairs were put in hand as quickly as possible, and some amusing and highly instructive pages deal with the first efforts to get road-repair work going in order to provide the means of giving relief. The officers engaged on this work had to check all the usual forms of fraud which spring up whenever relief works are set in motion.

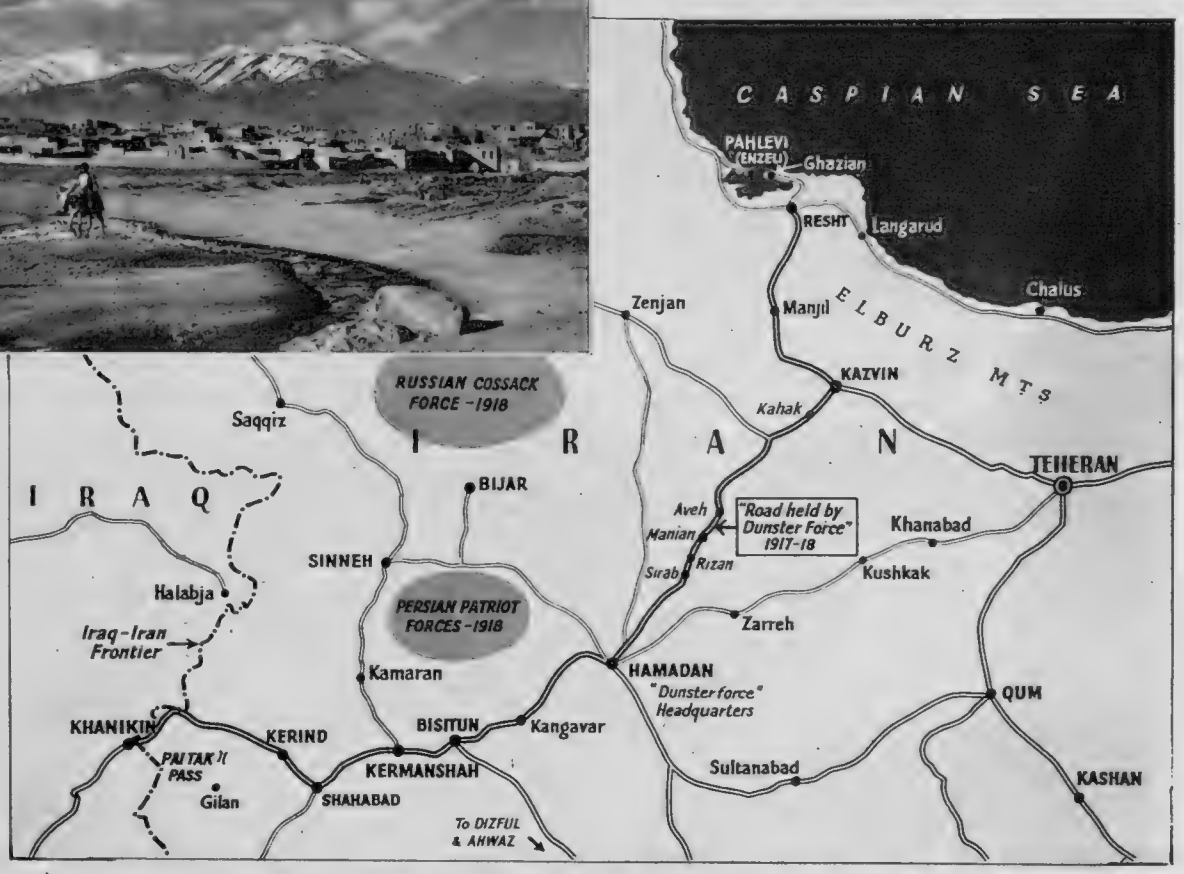
In the meantime reinforcements had been arriving, close touch had been kept with General Bicherakov extraordinary exercise of tact on the part of the leader and his officers. The defence line in front of Baku must have been one of the strangest ever held, for divisions of Baku troops which were to appear on certain portions just did not materialise at given moments.

In September, with the Turks at their very gates, General Dukuchaiev, who was in command of the Baku forces, was still unable to arouse the will to fight among his men to a sufficient extent to ward off the final assaults of the Turks. The moment arrived (September 14) when the Dunster Force must be extricated from its hazardous position. The North Staffordshires held on while the dangerous operation of removing the Dunster Force to the three waiting vessels was accomplished. The Dictators had been informed, but it was naturally an immense relief when the vessels pulled out to sea.

However, Enzeli was duly reached and the adventures of the Dunster Force were over. Through vital months they had held a line of the thinnest possible description, and had succeeded in closing a door which otherwise would have remained wide open to the enemy.

THE RAILWAY STATION ON THE KASVIN ROAD AT HAMADAN (formerly known as Ecbatana)

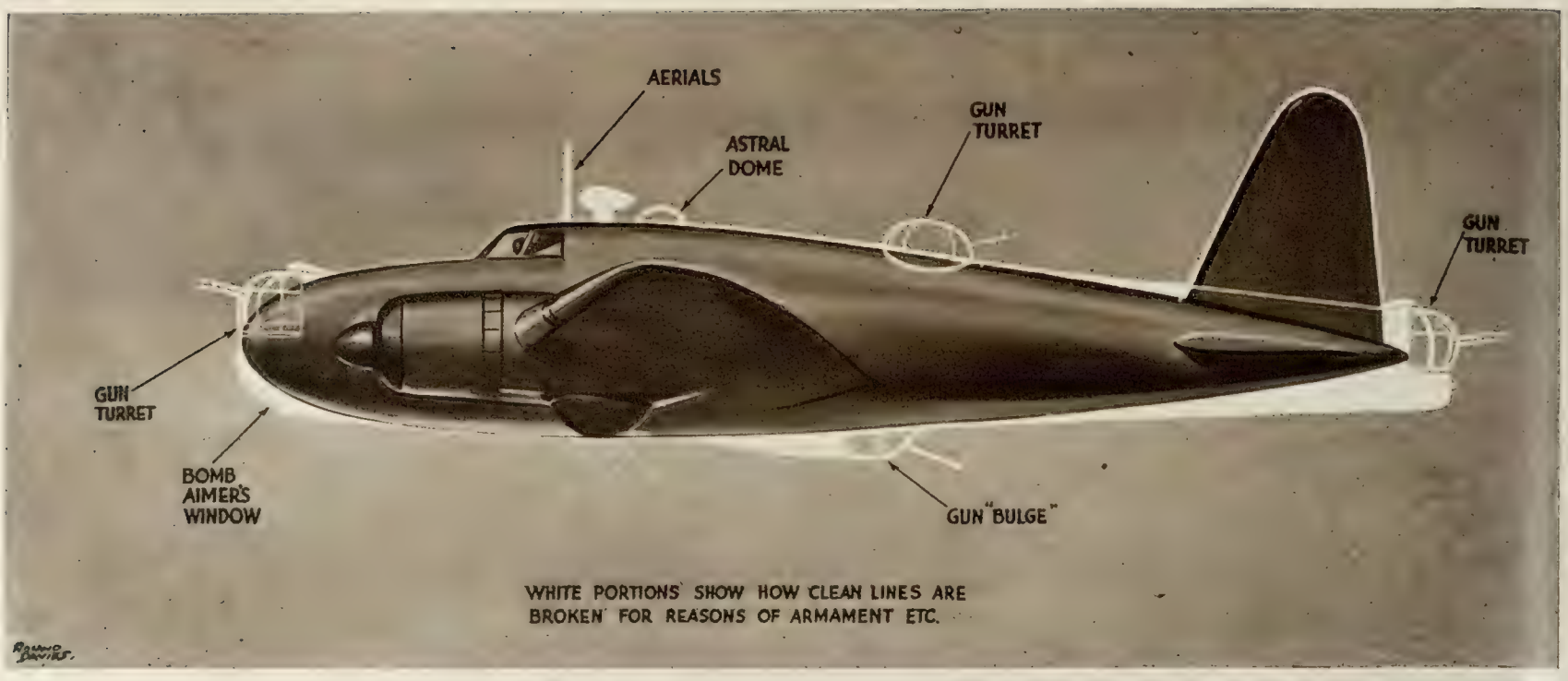
***On right*—HAMADAN (formerly Ecbatana)—a general view showing the Alwand Mountains:** The famous rug centre is to-day a bustling city. It lies midway between Teheran and Bagdad. Here the Medes stored their plunder when they captured Nineveh; and Cyrus later kept the fabulous wealth seized from Croesus at this spot. Beneath a domed mausoleum in the heart of the city stand the legendary tombs of Esther and Mordecai



WHERE BRITISH FORCES HAVE HELD SWAY ON MORE THAN ONE OCCASION: The Hamadan Road, linking Bagdad with Baku, forms a frontier line between East and West

Setting out in a north-easterly direction from Bagdad, Khanikin, on the Iraq frontier, is reached after a fairly easy run. More difficult going is encountered at the Paktar Pass and in crossing a series of folds in the hills on the way to Kermanshah and Hamadan—picturesque towns of old Persia, with walls and gates still surviving; against a background of snow-capped hill country they present a picturesque appearance. Hamadan (known to students of history as Ecbatana—it occurs in the fascinating story of Tobit) has been renowned for its silks and leather goods; its inhabitants still preserve much of their ancient ways and customs. At Kasvin much wine and grain has been produced, but at the present time there is a shortage of corn in the district, a condition of things which the British forces are endeavouring to correct. Enzeli on the Caspian is a busy port, with steamer routes to Baku and other points on the Caspian

KERMANSHAH: Motor caravans and donkey trains on one of the caravan routes near the picturesque Persian town



THE IDEAL PROFILE FOR A MODERN AIRCRAFT, and the excrescences demanded by actual flying conditions—*Drawing by Roland Davies*

The dark outline in the above drawing shows what one might describe as the ideal for a high-speed aircraft; but for the actual operation of the aircraft there must, of necessity, be a number of additions which break up this ideal outline until the finished aeroplane takes on the form indicated by the white lines above. In a modern bomber, for instance, protection is a paramount consideration: hence gun-turrets fore and aft, and sometimes amidships as well. Then there is the astral hatch for taking observations by the navigator; wireless aerials, gun barrels, and other excrescences. All these must of necessity detract from the speed capabilities of the aircraft when finally it takes to the air

THE "BRISTLES AND BUMPS"

How the Fighting Aircraft of the R.A.F. are being Developed Under Actual Wartime Conditions

By LEONARD R. GRIBBLE

ON an aerodrome somewhere in England three veterans of the Battle of Britain stood surveying one of the latest Spitfires after return from a successful Channel sweep.

"You can't deny," said one, with a touch of wistfulness in his tone, "that we're losing something with these new Spits. There's not the same clean line. Look at those damned cannon breaking the line of the wings."

"Those same cannon can talk—fast," one of his companions reminded him.

The third member of the group agreed. "It's not beauty we want, but bullets," he decided.

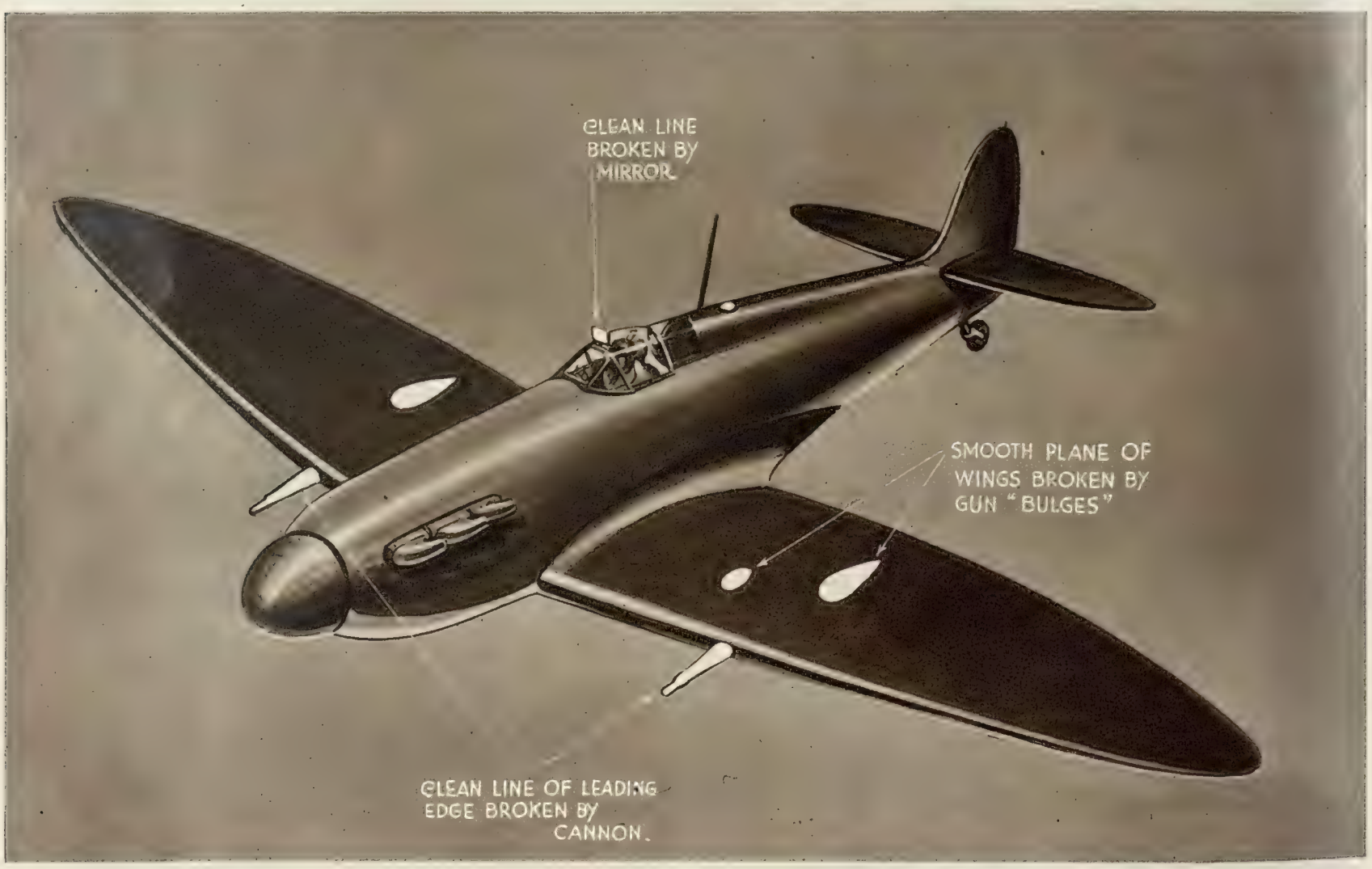
His decision was the same as that arrived at some time ago by the Air Staff, after a careful weighing of the pros and cons. The fire-power of the R.A.F. must be maintained and, when necessary, increased. Fire-power means destructive power, and the prime purpose of a battle-plane, fighter or bomber, when in action is to destroy.

So clean-cut lines and perfection of form must give way to some minor extent to sheer utility, in a military sense. The air-stream must be invaded if necessary. One factor alone permits of this—engine power.

In the last Great War the German triplane Fokkers were a startling innovation. The additional plane gave them extra manœuvrability against our biplanes, and our designers were set a stiff task to gain air supremacy for us. They overcame their difficulties not by turning out a British triplane, but by changing the design of our biplanes and producing more powerful engines.

They were right. It wasn't long before the biplane, as a land-based warplane, gave way to the monoplane, equipped with still more powerful engines, which provided all the necessary lift and carry and enabled the machine to overcome air resistances.

Now the persistent struggle between form and military utility has reached a far more technically developed stage. The latest additions to the R.A.F. have seemingly sacrificed some of the "form" to achieve a greater military utility. The air surface of these craft does not present the unbroken, stream-lined contours that is the dream and delight of the theoretical



THE DESIGNER'S CONCEPTION OF A FIGHTER AIRCRAFT and how his original clean lines are broken up by the fighting equipment itself—*Drawing by Roland Davies*

The Spitfire has passed through many phases of development since first it took the air some years ago. To-day its speed has gone up to a fantastic height; yet not so high as would be the case were it aerodynamically "clean." In the leading edges of the wings are the cannon guns with which the Spitfire is now equipped; behind these the wings themselves are broken by the bulges necessitated by the ammunition drums and other equipment. Over the pilot's cockpit the very necessary rear mirror (whereby the pilot can detect the presence of an enemy trying to sneak up on his tail) obstructs the air-flow and retards the speed to a surprising extent. All these factors—and others too involved to be mentioned here—must enter into the designer's plans

aircraft designer. They are spiked with guns, they have bulging hatches and fin-like aerials, they have lumps in the middle and bits at the ends. They have, it must be admitted, lost some of their less warlike grace.

Yet they have gained in that all-essential—fire-power; powered with more strenuous engines, they have become more manœuvrable at greater heights and at faster speeds. They have become, as weapons of war, more destructive. Any loss in aerodynamics has been more than made up in military performance and efficiency as a fighting unit, and this is what counts. In short, increased engine power has hitherto offset any disadvantage due to broken stream-lining, and increased fire-power has offset any failure to achieve, because of this, a purely theoretical maximum speed.

It is easy to criticise, from a theoretical view-point, the bristles and bumps of the latest designs of aircraft. But such critics are apt to forget that the Air Staff have consistently justified themselves by the changes and developments made in both our bombers and our fighters. Bigger and better bombs are nightly being delivered to schedule; daily our fighters are sweeping the Channel skies and maintaining their supremacy. These are facts, not theories.

The tendency is towards larger aircraft and heavier loads. Larger aircraft mean bigger crews and increased armament to protect them. Increased armament, if every available inch of plane space is to be used to best advantage, means a broken stream-line—that is, if one is to maintain a high degree of practical mechanical efficiency. For instance, cannon-guns firing explosive shells have to be oiled and cleaned after operation against the enemy. It is essential that they are where a mechanic can get at them with a minimum of delay and disturbance to the machine. This practical mechanical efficiency is an important detail of present-day aircraft design. It is an insurance in the event of the aircraft being hit. The components must be capable of being speedily replaced or repaired if the damaged machine is not to be a total loss for a considerable period.

In this matter of practical design let figures speak. In two years of intensifying air warfare the Axis has lost 8,020 planes to the R.A.F.'s 3,089, or more than two and a half times as many. In the Battle of Britain the Axis lost 3,048 machines compared with the R.A.F.'s 847 of the older types of Spitfires and Hurricanes, or more than three and a half times as many. After losing that battle the German plane designers went into a huddle and came out with several new articles. These are the figures for plane losses in action over and around Great Britain from January 1, 1941, until September 3, anniversary of the declaration of war: Axis 568, R.A.F. 37—or an advantage numerically to the R.A.F. of over fifteen times the number of its adversaries.

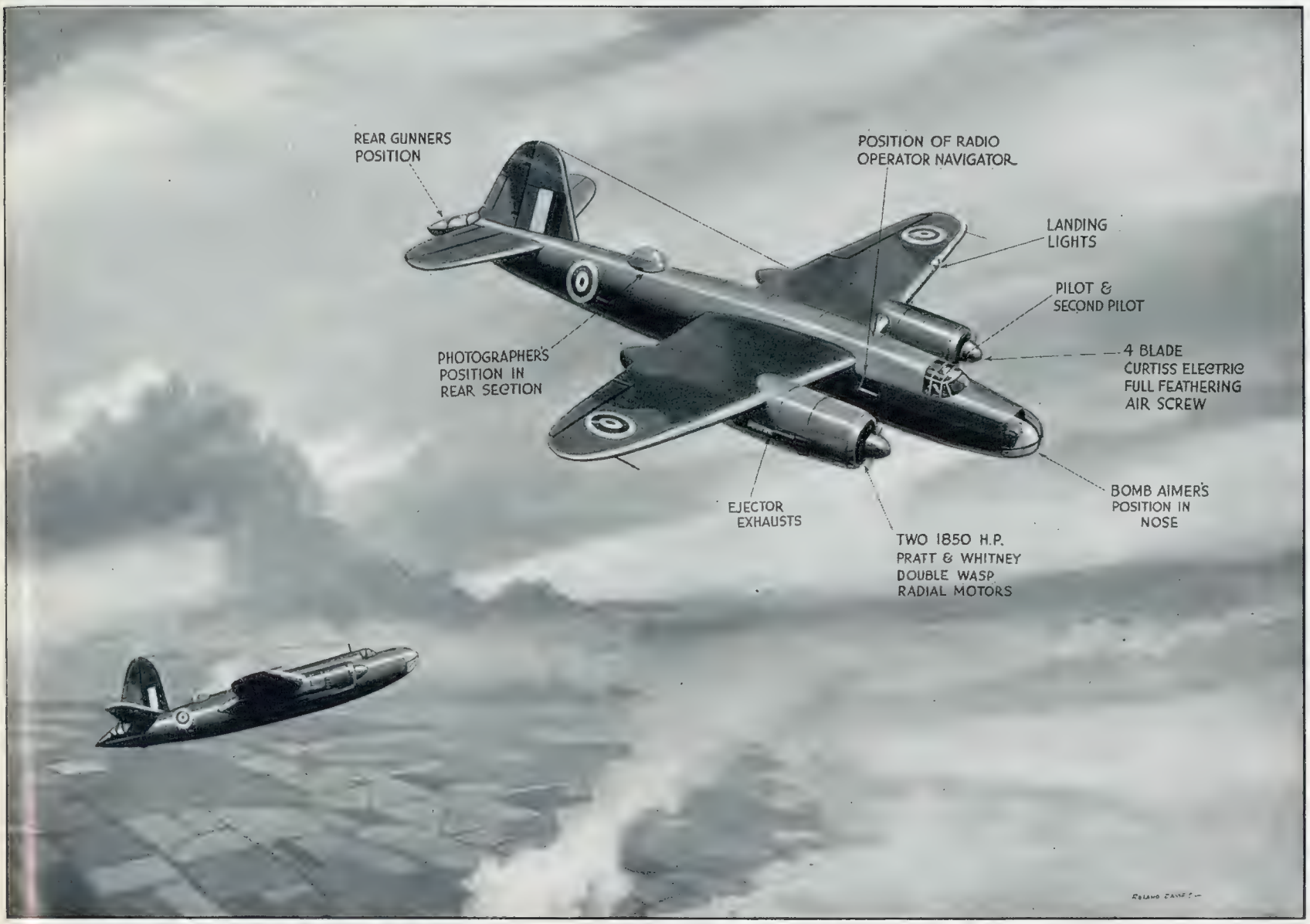
These figures tell their own tale of design and re-design.

Challenging though they are, however, and stimulating too, there can be no room for complacency, and critics of the recent tendencies in aeroplane design are performing a useful service to the country in keeping designers of warplanes constantly alert to the possibility of improvement and of a closer approximation to theoretical perfection, which must always remain the designer's goal. Naturally, the problems confronting the aircraft designer are increasing rather than decreasing as the war continues and both sides experiment with new ideas and evolve new tactics and strategy. But it is the designer's special task to adapt his designs to military requirements. That is where he must show his genius. There is, of course, the possibility, freely expressed in various quarters, of the ultimate evolution in the course of this war of fighting planes unlike any we have seen as yet. This may be so. Undoubtedly the designers of future fighting planes will succeed in ridding themselves of the bogy of design for design's sake; but they will at all times be working to produce practical warplanes capable of inflicting the maximum of destruction on the enemy.

The practical perfection of aerial stream-lining is the glider. But gliders are not planes.

What our designers are getting down on paper, and what our factories are turning out in ever-increasing numbers, *are* planes; planes improved in performance by wartime experience, planes our men can fly and fight with every confidence. In fact, they still remain the best planes in the world to-day.

It is up to the designers to ensure that they will be the best planes in the world to-morrow.

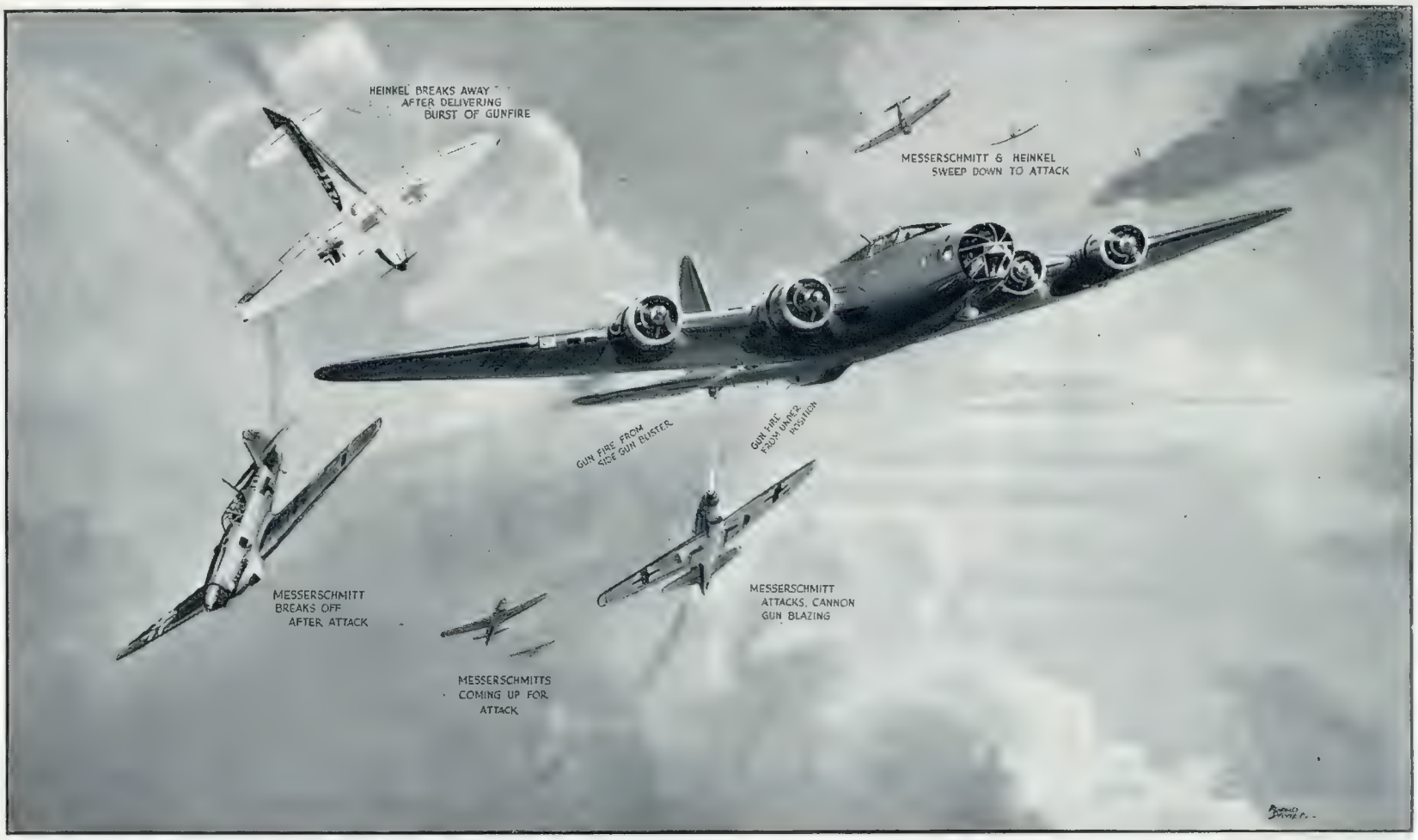


A COMPLETELY NEW DESIGN OF AMERICAN BOMBER which has been ordered in quantity for the R.A.F.—THE MARTIN MARAUDER—*Drawing by Roland Davies*

The Glenn Martin Company of Baltimore has already produced some fine aeroplanes for the R.A.F. With the new Marauder, however, the Martin Company have produced a completely new design of "attack bomber"—one of the first aeroplanes *designed since the war began* to go into production. A quantity of these have been ordered for the R.A.F., in addition to 1,100 ordered by the U.S. Army and now building at Omaha. The Marauder is a "shoulder wing" aircraft, with a tricycle undercarriage and with two engines of 1,850 h.p. each: its most striking characteristic, however is the first production four-blade airscrew, which is electrically operated for feathering and which is 13 ft. 6 ins. in diameter. The maximum speed of the Marauder is 346 m.p.h., with a range of 2,400 miles at 313 m.p.h., and a service ceiling of 34,500 ft. The bomb-load carried is 2,460 lbs., or one ton. Of the crew, the bomb-aimer sits in the nose; the pilot and second pilot in an enclosed cabin on top of the fuselage; the radio operator-navigator behind and below; the photographer in the rear section; and the rear gunner in the tail

How the new cannon guns are fitted into the leading edge of the Spitfire's wings: Not only do these affect the performance of the aircraft by reason of their weight, but also because of the drag they induce by opposing the proper flow of the air through which the aircraft hurtles

One of the "gun bulges" on the Spitfire: The drum contains the large-size ammunition required by the new cannon-guns with which certain of our fighters are now armed



FLYING FORTRESS VERSUS SEVEN ENEMY FIGHTERS: The first battle in the air between a Fortress and German fighter aircraft—*Drawing by Roland Davies*

The first encounter which any Flying Fortress aircraft has had with enemy fighters occurred recently. The bomber became engaged in a running fight of great intensity with no fewer than seven fighters. The Fortress set off early in the morning of August 16, one of a detachment sent to bomb the German battle-cruisers at Brest. Flying at a great height, but not at the Fortress's full ceiling, the bomber crossed the Channel. Near Brest the bomber was separated from the rest of the detachment. It swerved to the left of a large patch of cloud while the others swerved to the right. After that it flew on, attacked, and returned by itself. Three minutes after the bombs had gone the fire-controller—it is his job to stand with his head in the astro-hatch and watch every part of the sky—saw two Heinkel 113's coming out from light cloud about 1,000 ft. below the Fortress and slightly to starboard. They were joined almost at once by five Messerschmitt 109F's. All the fighters appeared to come from the same quarter of the sky. Their arrival was so prompt that it was obvious they had come from a standing patrol. The fighters made many attacks from both sides and from dead astern. Two of the Fortress's gunners and the wireless operator were severely wounded. In spite of his wounds the wireless operator continued to signal to his base. The captain swung the bomber quickly from side to side and dived—now fast, now slow. Down came all the fighters after him, firing all the while. The Fortress's No. 4 petrol tank was punctured and the crew thought the engine had caught fire. For a moment one of the fighters passed in front of the Fortress as it dived, and at once the observer fired at it with two front guns. Then, when the fight had gone on for twenty minutes, the Fortress reached a low patch of cloud and all the enemy fighters broke away. Black smoke was now pouring from the bomber. The fighters had scarcely left when the fire-controller, though wounded in hand and leg, tried to reach the other wounded men. But the gangway was now covered with a tangled mass of wires and cables and the guide-ropes alongside it had been shot away. The bomb doors were wide open below—this was the result of damage done by the German fighters—and the gangway was a narrow bridge over empty air. The fire-controller had to be held back, so anxious was he to get to the wounded men. The observer then tried to make the crossing, but when partly over he found that a slip was almost certain, and went back for his parachute. As soon as he reached the English coast the captain made for the nearest aerodrome. He still thought that his No. 4 engine might be alight. With flaps out of action, tail tabs shot away, bomb doors wide open, tail wheel stuck half up and half down, brakes not working, only one aileron any good, and a scarcely controllable rudder, the captain had to land on a strange aerodrome rather too small for a Fortress

AN AIR ADVENTURE IN THE ATLANTIC: A million-to-one chance which came off!—*Drawing by Wm. McDowell*

With petrol for only five minutes' flying left, no ship in sight and land many miles away, the outlook seemed grim for the crew of a naval aircraft way out over the Atlantic. The aircraft, which had been out on patrol in search of an enemy ship, ran into bad weather and failed to find the carrier from which it was operating. Just at the moment when the aircraft was down to a few hundred feet, an empty lifeboat was sighted. The pilot was able to put his plane down on the water close to the boat, and the three airmen swam across. Their luck still held. They were delighted to find that the lifeboat contained ample supplies of blankets, food, water, cigarettes, and even a bottle of brandy. There was also a mast, sail and a boat's compass, all in good condition. So the airmen shipped the mast and set sail, shaping a rough course for land. On the fifth day of their voyage they came up with a lifeboat carrying a number of ship-wrecked Danish seamen. The airmen handed over food and cigarettes to the sailors, but as they could not agree on the best course to steer, the two boats parted company. It was on their ninth day in the boat that the airmen saw a ship loom up out of the thick mist. Apart from slightly swollen feet due to exposure, the airmen were little the worse for their adventure. They found that they had sailed 200 miles towards land. The lucky lifeboat was later identified as coming from a ship which had been torpedoed

A TWO-MINUTE DRAMA OF THE SEA : A British destroyer rams a German submarine after she had been forced to the surface by depth-charges—*Drawing by W. G. Whitaker*

In last week's issue of *The Sphere* we published a photograph which showed the fate of a German submarine at the hands of a British destroyer. Mr. Whitaker's drawing above illustrates this same incident, but with a greater detail than that portrayed by the camera. As soon as the submarine had been located, she was forced to the surface by depth-charges dropped overboard : as she came up the destroyer went full speed ahead and rammed the U-boat, sending her crashing to the bottom of the sea. The smaller drawing reproduced *below* shows how this feat was accomplished, whilst Mr. Bowen in his accompanying article describes some of the factors involved in this rare naval occurrence

THE DESTROYER v. THE SUBMARINE

The Use of the Ram against the U-Boat. Described by F. BOWEN

THE destroyer, which was originally given her full name of torpedo-boat destroyer in the '90's, when she was designed to destroy torpedo-boats, is still the submarine's most dangerous enemy and fully justifies her name on that account. Although she has proved herself capable of undertaking a score of functions, mostly dangerous, since the war began, the destruction of submarines is now her principal purpose, justifying her very high cost. The work of convoying merchant ships has to be left largely to sloops and corvettes, which have won the highest praise, but destroyers join them whenever they can be spared, their speed and handiness permitting them to race round the convoy like a sheepdog round a flock, and to guard any threatened point. When battleships, aircraft-carriers or cruisers, steaming at speed, have to be provided with an anti-submarine screen, it is only the destroyers which can be really useful, as the smaller types cannot keep up, far less dash to the point of attack.

Nowadays the depth-charge is the destroyer's principal weapon, and certainly gets most public notice, but the ram still claims its victims, just as it secured the first U-boat sunk during the late war. It is, however, generally used in conjunction with the depth-charges, which, if they do not detonate close enough to the submarine to destroy her, are intended to force her to the surface either voluntarily or by throwing her controls out of gear.

There are very few operations in naval warfare which call for greater nerve than throwing a fast ship whose plating is proverbially "as thin as a tea-tray" at full speed against a vessel with the greatest possible structural strength in order to withstand the terrific pressure of great depths. Nobody loves his ship more than a destroyer captain, and it is deliberately hurling her to certain serious damage, possibly destruction.

It not only calls for the greatest nerve, but also the coolest judgment. If she has all her boilers lighted up, as she probably would have, the destroyer's speed may be anything up to 40 knots, when a miscalculation of seconds may mean the failure of the blow.

It has to be taken on the point of the stem ; a glancing blow might not destroy the submarine, but it would certainly sink the destroyer. If possible, the conning-tower itself is avoided ; it is a tempting target, but it is shut off from the remainder of the U-boat by a watertight hatch, and more than one has got home minus her conning-tower. The actual choice of target is largely a matter of circumstances. Abaft the conning-tower is the most favourable, but the submarine may be surfacing at such an angle that the high speed of the destroyer will carry her right over it and the forward end will be the only place where the ram will bite. If it is possible to get the blow in aft it will almost certainly force up the bow and offer the opportunity of riddling it with shell-fire, while a big hole in the after part will probably admit sea-water to the accumulators, which will immediately generate chlorine gas and give the crew the alternative of abandoning their ship or being fatally gassed.

During the last stages of the late war the ram was so much in fashion against U-boats that the destroyers were built with their forefoot carried right down in a hardened steel spur, but that naturally reduced the handiness which is one of their greatest assets, and post-war designs have the ordinary rounded forefoot, which offers less resistance to the water in turning. They are, however, built with the strongest possible longitudinal framing, making a series of huge lances to plunge into the hull of the submarine. They are also subdivided into a large number of watertight compartments, especially forward, and the hatches to their lower decks are made watertight so that they will still float even if their bottom is ripped right away for a considerable length. Even if the hull of the destroyer escapes with comparatively light damage it means a spell in dockyard hands, for the machinery is so powerful, and at the same time so delicate, that it is practically certain to be thrown out of alignment by the shock.

HOW THE GERMAN SUBMARINE MET HER FATE by being cut in two by a British war vessel

This diagram is in amplification of the picture by Mr. Whitaker reproduced at the top of this page. It will be seen from the sketch that the destroyer's wake passes just behind the conning-tower : her specially designed stem, consisting of a murderous forefoot filled with concrete behind, has sheared through the top of the U-boat's engine-room. Water rushing in here makes her heavy, whilst buoyancy remains in the bow half and stern. The result is a great bending stress which breaks her back upwards. Probably the stern would never break surface, the engine-room extending so far aft that there would be insufficient buoyant space left to tilt it up out of the water, as is the case with the bows

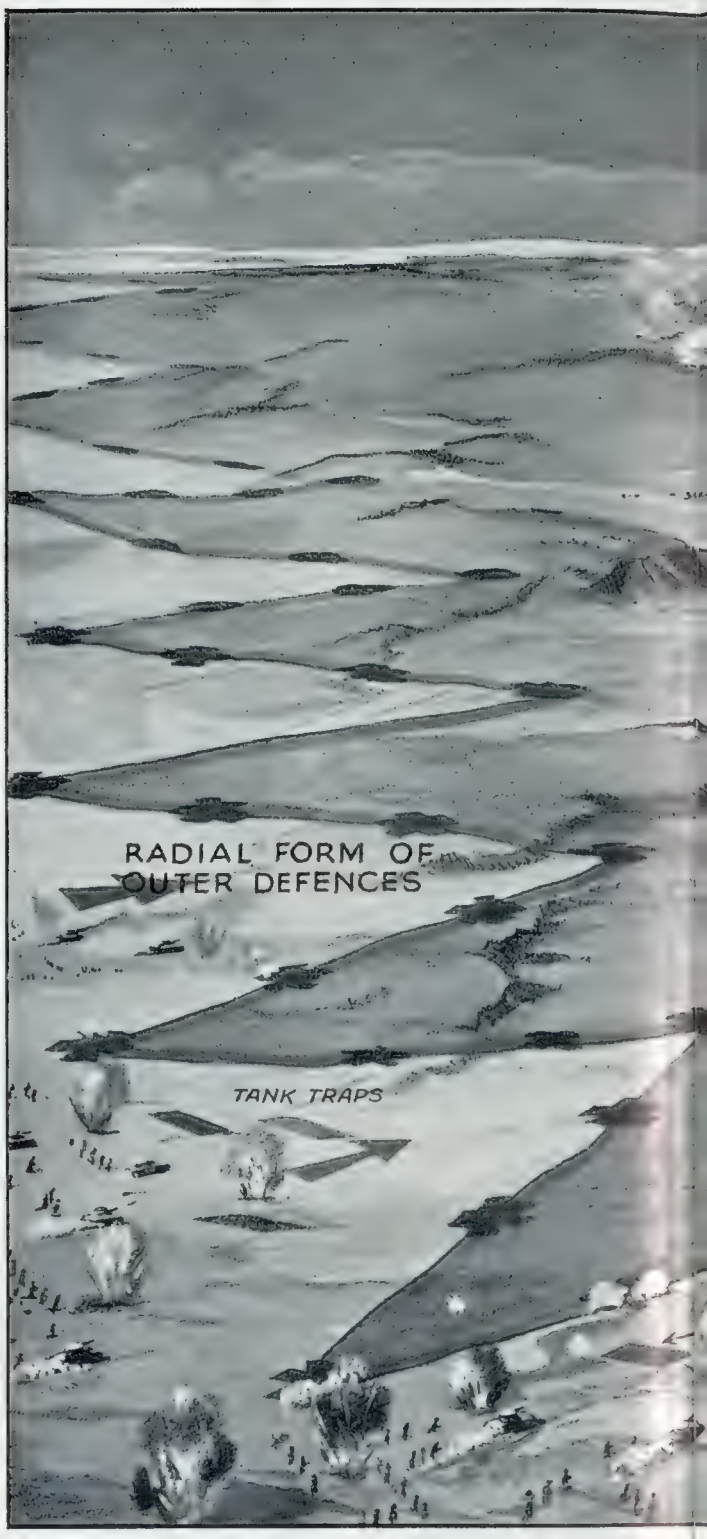
WHY IS TOBRUK IMPREGNABLE?

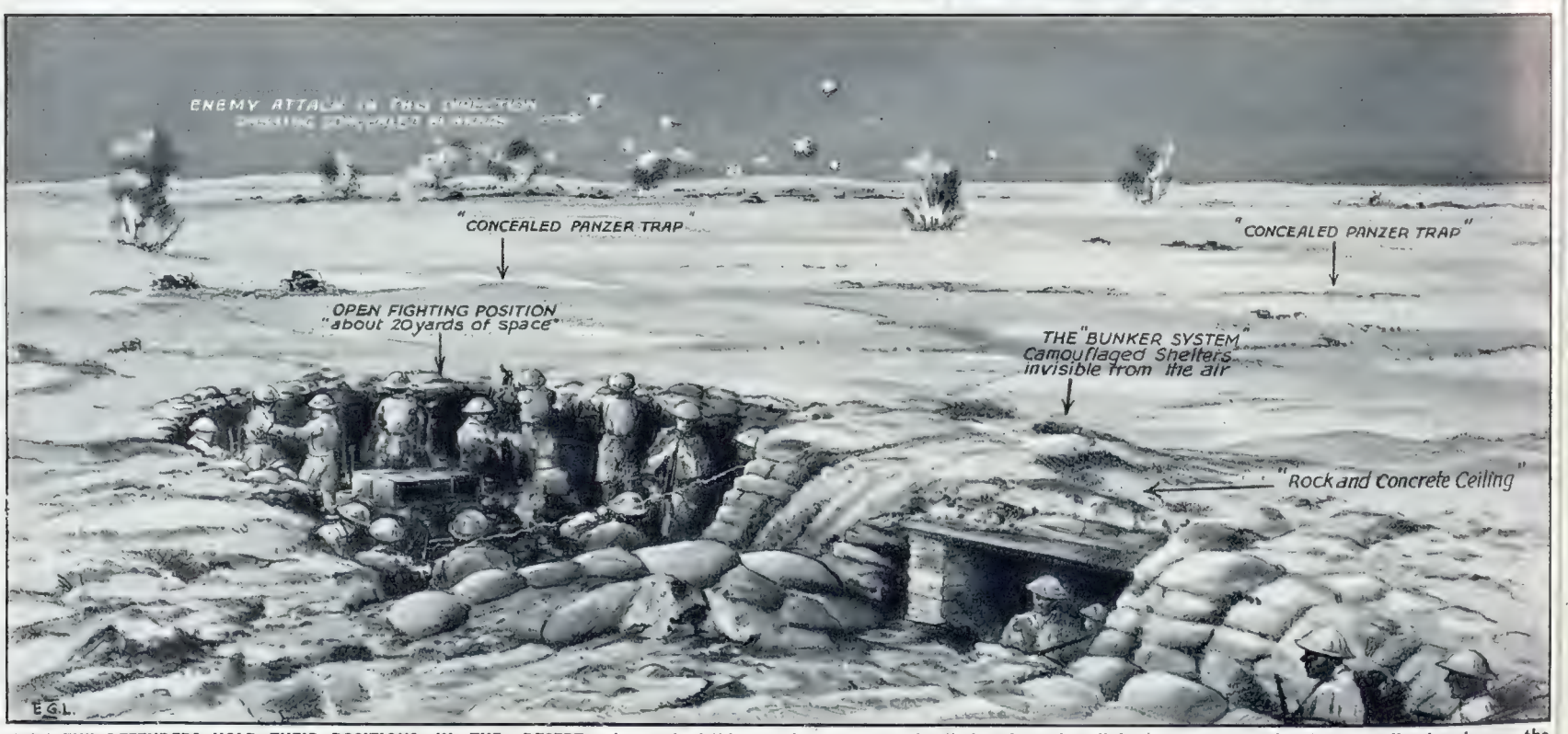
The Secrets of the Defensive System Explained by Diagrams

WHEN Tobruk was captured by British and Imperial forces during their lightning campaign in Libya, the Italians were forced to surrender what they had, till then, regarded as impregnable positions They were not! But since our own occupation, the defence system has been so developed that Tobruk *is* now impregnable. The first German attacks were made at Easter of this year: not knowing the nature of our fighting positions, their infantry pierced unhindered far into our own territory; but—they were not able to protect their flanks or cover their rearguard. "The attack at first seemed a brilliant success," states one of their own published reports, "but it was doomed to be checked the moment the enemy [our own troops, that is to say] suddenly started to fight from unrecognised bunkers, with his fire concentrated on our shock troops from behind."

How the open, barren area surrounding the town and harbour of Tobruk has been converted into the great stronghold it is to-day is described in the two drawings reproduced here. To begin with, the fortifications are totally different from all those which the Germans have so far experienced on either the West or East fronts. There is a uniform "bunker system," but there are no Panzer troops and no concrete walls, and *everything is below the surface of the earth*, and *therefore invisible*. The first girdle of defences, numbering 170, consists of dug-outs entirely independent of one another and running radially, so that it is not a case of a defence line but rather of a defence field, each bunker being about 5 ft. below the earth, with ceilings of rock and concrete. Not a single one projects above the surface or can be seen anywhere. Panzer traps are around every fort. The fighting positions, taking up about 20 yards of space, are dovetailed in such a way that defence is possible in all directions, and they are open to the sky. They are only occupied when the moment of actual attack begins, and are not provided with any kind of superstructure, hence they cannot be seen, let alone found. It is clear that artillery, however massed, can achieve little, and only a shell of very heavy calibre is able to shake or pierce the stony ground. Stukas are also without effect, unless by chance their bombs fall squarely into the fighting ditches, but in view of their narrowness this is very seldom.

THIS IS WHAT AN ITALIAN DEFENCE LINE LOOKS LIKE IN THE WESTERN DESERT: This system has been greatly improved upon by our own system of "perimeter defences" around Tobruk. The picture was taken in January 1941 after the capture of Bardia





HOW THE DEFENDERS HOLD THEIR POSITIONS IN THE DESERT—almost invisible to the enemy and offering but the slightest target to the German dive-bombers: the area also abounds in traps for advancing tanks—*Drawing by E. G. Lambert*

This is the "bunker system," as the Germans call it: it consists of shelters which are camouflaged from above and in which the defenders live and work. It is only during an actual attack that the men issue forth from their shelters; and then they man the open fighting positions, which give about 20 yards of space. On all sides concealed tank traps, mine-fields, and other dangerous areas abound. By this means, artillery fire is ineffective, as is precise dive-bombing

THE SECRET OF THE TOBRUK DEFENCES: THE "GIRDLE" OF 170 DEFENSIVE DUG-OUTS, entirely independent of each other and running radially. Not a single one of these projects above the surface or can be seen from above—*Drawing by E. G. Lambert*

Here is an impression of what the defensive system at Tobruk would look like were it visible to the eye. But it is *not* visible: everything is below the surface of the earth, and therefore quite invisible from above. The first girdle of defence consists of some 170 defensive dug-outs, which radiate in the manner shown: between each post are camouflaged tank traps and mined areas into which the enemy can advance only at his peril. Should he venture within these areas he can at once be cut off from his own lines. Within the "girdle" are the artillery batteries; and in the distance is Tobruk itself, firmly planted on the Mediterranean shore and defended by the Royal Navy

A SCENE IN A FORWARD AREA AT TOBRUK: Indian troops are here manning one of the anti-aircraft posts in one of the forward areas

A FORWARD POST MANNED BY AUSTRALIANS: These are the men of unquenchable courage whom neither tanks nor dive-bombers can subdue. The entrance to their underground quarters can be seen in the background

AMPHIBIOUS WARFARE: *Two Striking Series from the U.S. and the British Army*

HOW THE NEWLY-FORMED RECONNAISSANCE CORPS TRANSPORT THEIR BREN GUNS AND RIFLES ACROSS RIVER OBSTACLES IN SMALL RUBBER "CORACLES"

The Reconnaissance Corps is the recently-formed body of picked men, now engaged in special training and on special duties. They have elaborated a number of new ideas in warfare. One of these is illustrated in the three pictures reproduced here. Dunkirk proved the importance of swimming, and a battalion of the new Corps are now applying the lessons learned during the evacuation. In crossing a stream, the swimmers put their arms in a reconnaissance boat and then plunge in and push it across; non-swimmers cross later by means of a rope. On arrival on the opposite bank, firing positions are at once taken up by the first-comers to cover the arrival of their comrades

WRAPPING THE ARMOURED CAR UP FOR A SWIM: An idea adopted by an Engineer Battalion of the U.S. Army on manœuvres

HAVING DRIVEN THE CAR ON TO THE CANVAS, the latter is then folded around it and the vehicle is forded across the stream

THE MEN, HAVING CROSSED THE RIVER, SCRAMBLE OUT ON TO THE LANDING-STAGE WITH THEIR BREN GUN

WHILST THE FIRST-COMERS HOLD OFF THE ENEMY, REINFORCEMENTS ARE HAULED ON TO THE RAFT

IF THE CANVAS FILLS WITH WATER, a small hand-pump is brought into play in the manner shown

Bridges aren't always available for an army to cross rivers: consequently these soldiers of the Fourth Motorised Division of the U.S. Army have been taught to ford streams in the manner indicated in the accompanying pictures. Their "jeep reconnaissance cars" are driven on to a canvas tarpaulin spread out at the river's edge, and the whole car is then bundled up snugly. The soldiers swim alongside, pushing their car as they go. Should the tarpaulin ship too much water, small hand-pumps are carried along to pump it out

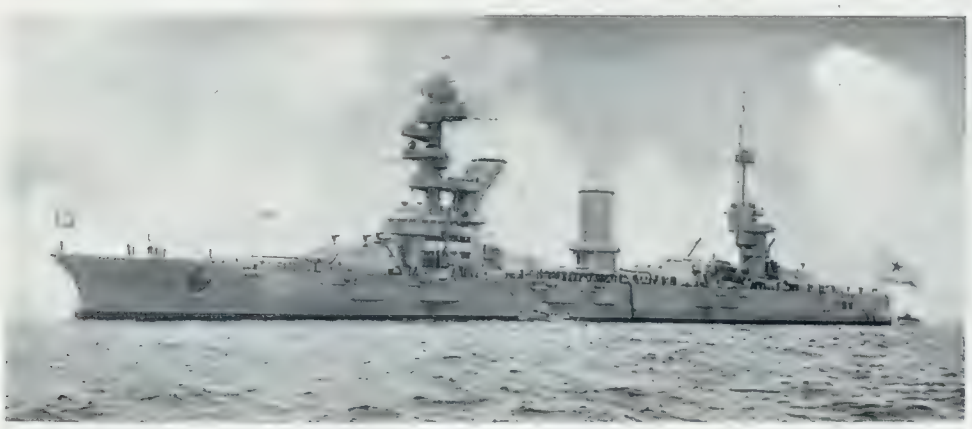
THE BOMBARDMENT OF RIGA by the Russian battleship *Oktiabrskaya Revolutia* ("October Revolution") and the cruiser *Kiroff*—*Drawing by W. G. Whitaker***

Students of naval affairs were, during the encirclement threat to Leningrad, perturbed as to the possible fate of the Russian Navy. If Russia's northern capital fell into enemy hands, Kronstadt and naval harbours of the city would go with it. Fortunately, there was a back door open for all the smaller vessels up to the medium destroyers—they could get round to Murmansk by way of the Stalin Canal. Even if the big ships had to be scuttled, this would not deprive the Russian Baltic Fleet of the laurels which she has won in conflict with German naval forces since the days in June when Germany attempted surprise attacks on Russian merchant ships. The Russian Navy replied in a manner which must have greatly surprised the German Admiralty. German convoys were pounced upon by Russian naval forces with a success which indicated that great changes had taken place in the Russian Baltic Navy. Two vessels stand out in the record of successful operations, both on the occasions of distinct naval conflicts and on operational patrols. These are the Russian battleship *Oktiabrskaya Revolutia* and the cruiser *Kiroff*. The former is by no means in her first youth, whereas the *Kiroff* is a new cruiser of 8,800 tons and powerfully armed. The two ships have fought together on several occasions in and around the Gulf of Riga. The artist here shows the battleship, with her distinctive funnel and bridges, followed by the cruiser *Kiroff*, when bombarding naval stations and harbours in Latvia

The RUSSIAN NAVY in the BALTIC

What Would Happen to It if Leningrad Fell?

THE Russian Navy, sadly handicapped by the loss or threatened position of its outlying bases, certainly appears to be making the very most of its opportunities in the Baltic. The Germans would seem to have been over-confident of the prowess of their arms in these waters, and to have sent forward light forces for mine-sweeping and offensive operations, and big convoys protected by comparatively small destroyers, in a manner for which they have paid heavily.



ANOTHER OF THE SOVIET'S BATTLESHIPS: The "Marat," of 23,600 tons: This vessel was completed in 1914, but she was refitted in 1926-28. The *Marat* is one of a class of four, of which one was scrapped. She is armed with twelve 12-in. guns and carries a complement of 1,125

Perhaps their over-confidence has saved them some useful ships, for the Russian Navy has fought remarkably well. The Baltic Fleet is under the command of Admiral Kuznetsov, thirty-eight years old, who came to it from the command of the Pacific Fleet, where it seems that the Japanese had an unusual respect for him. He has devoted an immense amount of attention to training the Fleet in precisely the type of warfare which it is called upon to carry out: the defence of the Eastern Baltic. These waters are very intricate, and both shores are fringed with innumerable islands which are of great use to both sides, but the local knowledge acquired by the Russians is undoubtedly an advantage. They are making very full use of their aircraft, submarines and destroyers, many of the last-named being particularly fine.

The Russian Navy, it must be remembered, has been celebrated for its enthusiasm for minefields ever since the middle of last century, and it is known that the present regime has paid very great attention to that arm. Early in July, Moscow reported that two enemy destroyers had been sunk in the Gulf of Riga, and an attacking U-boat had been driven on to a minefield, where she had been destroyed. Next day two more destroyers were claimed in the Gulf of Finland, and Berlin counter-claimed that a Russian destroyer had been damaged while attacking mine-sweepers. Finnish submarines claimed to have sunk "several" Russian transports evacuating troops, but there was a suspicious vagueness concerning their number and size.

Later, neutral sources in Sweden, in a good position to know, because survivors were picked up by Swedish men-of-war, reported that a German convoy had been practically destroyed in a Russian minefield, three transports and their naval protectors being sunk. The most important of the three ships was the *Tannenberg*, a ship of about 4,000 tons gross, built for the German Government in 1935. Nominally she maintained a passenger service between West and East Prussia, while the Germans were making their full preparations in the latter province, but actually she was intended very largely to try out a new type of high-pressure turbine engine for the German Navy.

Then, on Saturday, July 12, came the big battle which resulted in a triumph for the Russians. Reconnaissance planes reported a big German convoy of fifty ships, including shallow-draught barges carrying tanks, and a naval escort of a cruiser, several destroyers and armed trawlers, and Messerschmitt fighter-planes, *en route* for Estonia, where the Germans were fighting. Russian destroyers and aircraft attacked at once, the latter arriving in waves and returning repeatedly to their bases for more bombs. Before dawn they were reinforced by motor torpedo-boats, which added to the confusion, and then by the battleship *Oktiabrskaya Revolutia* and the cruiser *Kiroff*. The German convoy was soon completely demoralised, and dawn revealed that, in addition to the direct damage caused by the Russian attack, there had been several collisions and strandings. Thirteen transports were definitely sunk, and many others set on fire and damaged before they fled to the west. Four 800-ton destroyers were sunk, and the single cruiser appeared to have made her escape.

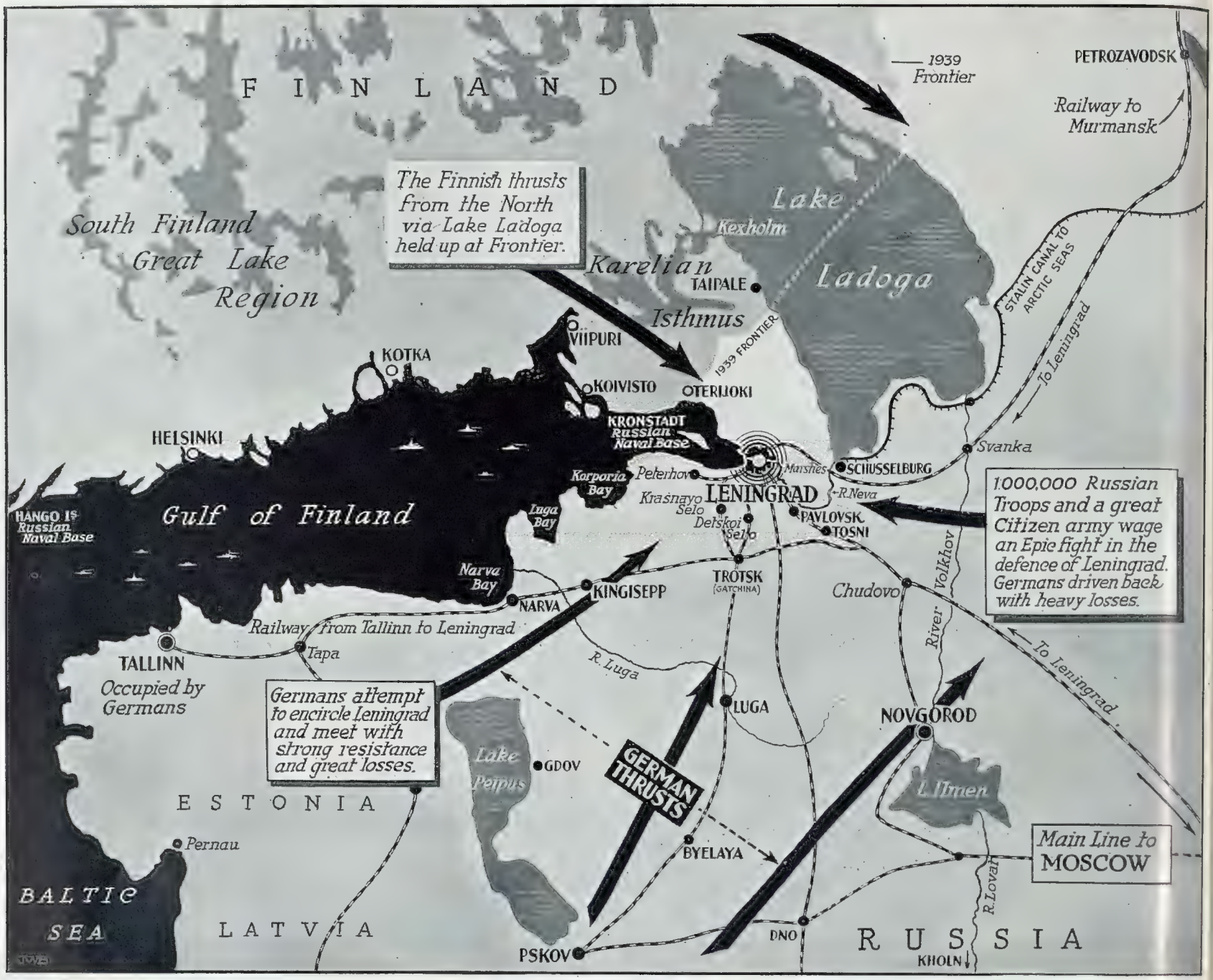
That was the first of several Russian triumphs against convoys. Three days later another convoy of 26 ships taking troops and supplies to Finland was attacked off the Latvian coast by destroyers, motor torpedo-boats and aircraft, and twelve ships were sunk, with a small loss admitted by the Russians. The third attack was by aircraft and destroyers. Four transports and a large tanker were sunk by the former, others being damaged, while the destroyers sank five others with gunfire.

In the meantime, the *Oktiabrskaya Revolutia* and *Kiroff* bombarded Riga with good effect, and minor Russian naval forces have bombarded innumerable islands occupied by the Finnish forces. At the time of writing, the base at Hango is still gallantly resisting incessant air and artillery bombardment, but the German Navy, in spite of all efforts, has been unable to cut its sea-lane to Kronstadt and Leningrad, a lane which is probably well protected by the intricate minefields which the Russians love. They have also maintained a steady patrol of the Estonian coast from Kronstadt, bombarding the German forces on the Parnu Road, and their motor torpedo-boats claim to have sunk more than one German submarine.

If Leningrad were occupied by the Germans, the fall of the city would entail the scuttling of certain larger vessels of the Russian Fleet. The Stalin Canal fortunately provides a way out for all the smaller vessels—only the larger Russian destroyers would be unable to reach Murmansk by this route. The cruisers would have to be scuttled or otherwise rendered useless to the enemy. A glorious dash along the unprotected northern ports of Germany belongs to the realm of exciting dreams or to the pages of the war novelist.

F. C. B.

The TWO BELEAGUERED CITIES of RUSSIA—Leningrad and Odessa



THE GERMAN ENDEAVOUR TO ENVELOP LENINGRAD, THE U.S.S.R.'S NORTHERN CAPITAL: The German endeavour to encircle Leningrad took three main directions on the west and south and two more to the north, if we include the Finnish attacks to the east and west of Lake Ladoga. The most westerly thrust was through Narva and Kingisepp, on the railway to Tallinn. This is an east to west line running to an important junction south of Leningrad. At Trotsk, four railway routes meet, two leading directly to the city and one southward to Pskov. A little further to the east is the main line to Vitebsk *via* Dno. The Germans had crossed this line on their way to Novgorod, where another railway line was broken through—the trunk line to Moscow lay ahead. All the westerly lines had thus been cut, but the advance was slow, the Germans themselves complaining of the heavy weather which had rendered road traffic slow and dangerous. Day after day heavy rain had been falling, bogging numbers of heavy motorised columns. The Finns to the north had reached the district of Oterijoki (on the old 1939 frontier), but had slowed down at this point. The Finnish claims to successful advances, in fact, left this region at the beginning of last week and switched across Lake Ladoga and dealt with thrusts of unstated dimensions against the Stalin Canal. The German attack could only be said to be creeping forward and all the time the citizens of Leningrad were arming and preparing the defences of the city to meet the invader if he attempted to break into their city. Hand-grenades and bombs and other arms of all description were being turned out in great quantities

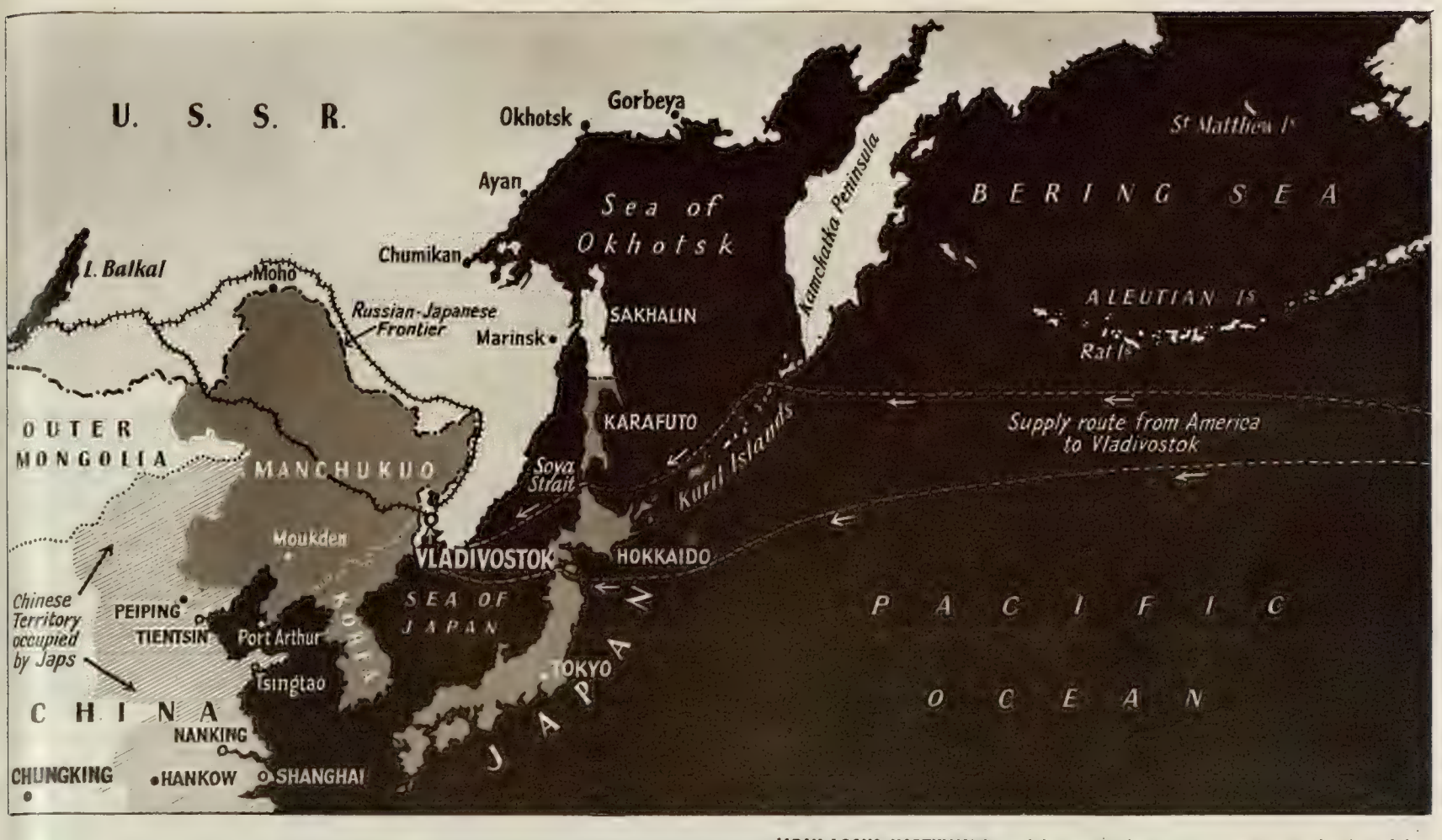
A SCENE IN THE PRINCIPAL CENTRE OF LENINGRAD: The Twenty-fifth of October Street, formerly the Nevsky Prospekt, chief thoroughfare in Russia's northern capital

THE MOSCOW STATION IN LENINGRAD, formerly known as the Nicholas Station, an imposing architectural structure

THE SOUTHERN END OF THE EASTERN FIGHTING LINE—A DISTINCTIVE FEATURE OF ODESSA

Drawing by Percy Home

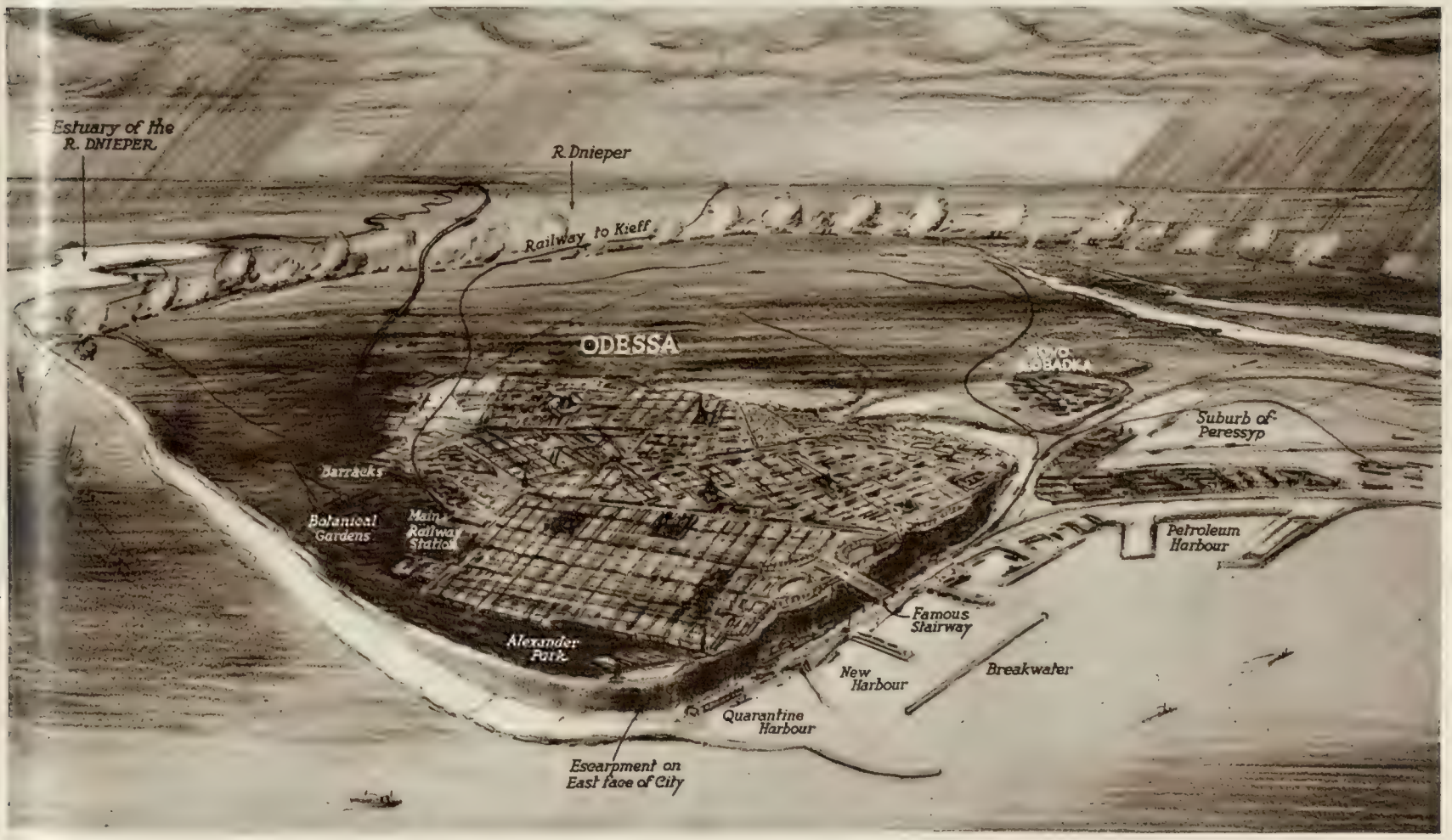
The escarpment, or ridge, which rises above the harbours. Part of this ridge has been built up with arches, and the slopes have been formed into ornamental gardens. A funicular railway runs up to the summit of the escarpment on the left of the huge stairway which is one of the sights of this famous Black Sea port. Odessa has been called the "Southern Palmyra" and is regarded as one of the most beautiful cities on the Black Sea coast. At the end of the eighteenth century it was merely a small Turkish fortress and village, but during the next hundred years it grew into a busy commercial and industrial centre and important seaport. It suffered much during the Revolution of 1917-18, and later it was occupied by the Allied Forces of the war of 1914-18. Amongst its other features, Odessa is famed for its beautiful bathing beaches



JAPAN LOOKS NORTHWARD, and is now trying to threaten the Soviet by talking of the "danger" of Vladivostok

It is not many weeks ago that Japan was talking of thrusting southwards towards Thailand and the waters around Singapore. Faced, however, by the flatly emphatic statements that such southward extension of her spheres of interest would bring her into direct conflict with the United States (and that she would encounter also active opposition from this country), Japan has now been forced to abate her former activities, and to direct her attention to less dangerous regions—or to those which she thinks less dangerous. Looking for some means of saving "face," the Japanese are now directing their gaze northwards. And they have now concentrated their threats on Vladivostok and that tip of Soviet Far Eastern territory which dips southwards between Manchukuo and the Japanese islands. Seeking some pretext for their argument that Russia is a "menace" (and quite ignoring the existence of a duly signed and sealed Non-Aggression Pact with that country!), the Japanese point to the war imports into Siberia. These imports from the United States and other countries must, of necessity, pass through Vladivostok, the only outlet of importance to the eastwards—through which thousands upon thousands of tons of goods have passed over a period of many years. But the two principal routes from the East both pass in close proximity to Japanese territory, as indicated in the above map. Japan's protests to the United States have, at the moment of writing, made little effect on that country; tankers and other vessels have arrived in Vladivostok from America—and will continue to do so unless, or until, Japan attempts to interfere with Russia's quite legitimate Far Eastern interests. Such interference would, of course, gravely endanger the relationships between the two countries. The map reproduced here shows at a glance the interests involved in this remote part of the globe, interests which have a grave importance for the United States, as well as Japan and Russia!

ODESSA, long accounted the fourth city of the Russian Empire, lies on a sloping mass of limestone which terminates as a ridge or escarpment 150 ft. high. The city is connected with the harbour level by a famous flight of granite steps, 200 in number. Those in a hurry are doubtless glad to avail themselves of the short funicular railway which conveys them from one level to the other. It lies in close proximity to the great stairway. The whole city dates from the late eighteenth century, its massive stone-built houses rising above the ridge in a manner which recalls the frontage of Brighton. Its original population of 2,250 soon rose when the new city was planned by Catherine II. At the end of the nineteenth century its population numbered some 600,000. The streets are laid out formally at varying angles—nearly the whole of the city is built of the shell limestone on which it rests. The quarries form, as it were, extensive catacombs beneath the streets, and to-day make very desirable air-raid shelters. To the north-east are two protective sheets of water. Flat country extends inland behind the city. A statue stands (or stood) in Odessa to the Duke of Richelieu, a French statesman who took service under the Czar at the time of the French Revolution; he became Governor of Odessa, and was mainly responsible for its great advance during the opening years of the nineteenth century



ODESSA, THE GREAT RUSSIAN CITY ON THE BLACK SEA, now beleaguered by the Germans—*Drawing by Percy Home*

The escarpment which forms the south-eastern edge of the city is here clearly indicated. This is 150 ft. high, and is a limestone formation sloping towards the Black Sea. The escarpment terminates at this point and forms the ridge on which are built the houses overlooking the harbour.

The positions held by the German Army are indicated in this view on the landward side: from the sea the city is still, at the moment of writing, receiving vital supplies by merchantmen which sail under the protection of the Soviet Black Sea Fleet

MILITARY BRIDGE-BUILDING in WAR

Written and Illustrated by L. Ashwell Wood

MILITARY bridge-building is a highly skilled job with a long history. Xerxes crossed the Hellespont on a roadway which consisted of planks laid on lines of supporting boats.

For modern military purposes, two main types of bridges have to be provided by the engineers—those which have to be made by improvised methods on the spot, and those made with regular equipment.

The British Army is considered to possess the finest bridging equipment of any army in the world, and it is the regular methods of construction that are outlined here.

Six main types of bridges are employed, three of which rest on the surface of the water, and three of girder pattern.

The floating types are naturally lighter to transport, but cannot support so great a load. They are the small infantry assault bridge, collapsible-boat bridge and the regular pontoon.

The assault type, which is the simplest kind and used for transporting troops in single file, consists of kapok-filled floats which are put on the surface of the water and covered with duck-boards.

Collapsible-boat equipment is the second method and provides a speedily erected bridge suitable for transporting medium weights such as light tanks or Bren-gun carriers. Quick assembly under enemy fire makes this type of bridge very useful.

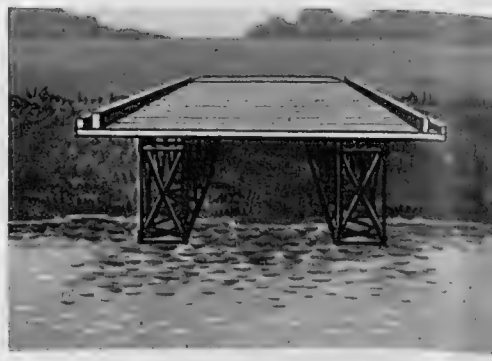
The third type of pontoon construction is known as the regular pontoon equipment; it is suitable for loads up to 30 tons, but a column of lorries is needed to bring it up to the site, and fairly good approaches have to be provided.

Four methods of building are employed. The simplest adds successive stages as the pontoons are ferried into position and the roadway laid. Another method is to build the bridge and gradually push out each stage. Again, complete sections may be assembled on the bank, floated into position and connected together. The last method is to assemble sections along the bank and allow the current to swing them into position.

The three girder types of bridges used by the British Army are capable of carrying heavier loads. The lightest will span a gap 64 ft. wide, is very easy to handle, and can be quickly erected by cantilever launching. A medium type of larger section is used for heavier loads.

A heavier type which will span a gap 120 ft. wide is launched by the "derrick and preventor" method and is suitable for any load, being much more of a permanent construction; this kind takes four to eight days to erect. The sections from which the building is done consist of skeleton steel boxes made up in girder form, which are connected together according to the distance to be spanned. *(Two illustrations of this type are reproduced on the following page.)*

THE INFANTRY ASSAULT BRIDGE, which is a very simple affair, used for transporting infantry in single file. It consists of canvas floats stuffed with kapok, each of which has a wooden support strapped to it upon which the wood duck-boards are placed and secured. Two men carry each float to the water, where they are then joined up and pushed out into the stream. This is a very quickly constructed and effective bridge for foot soldiers

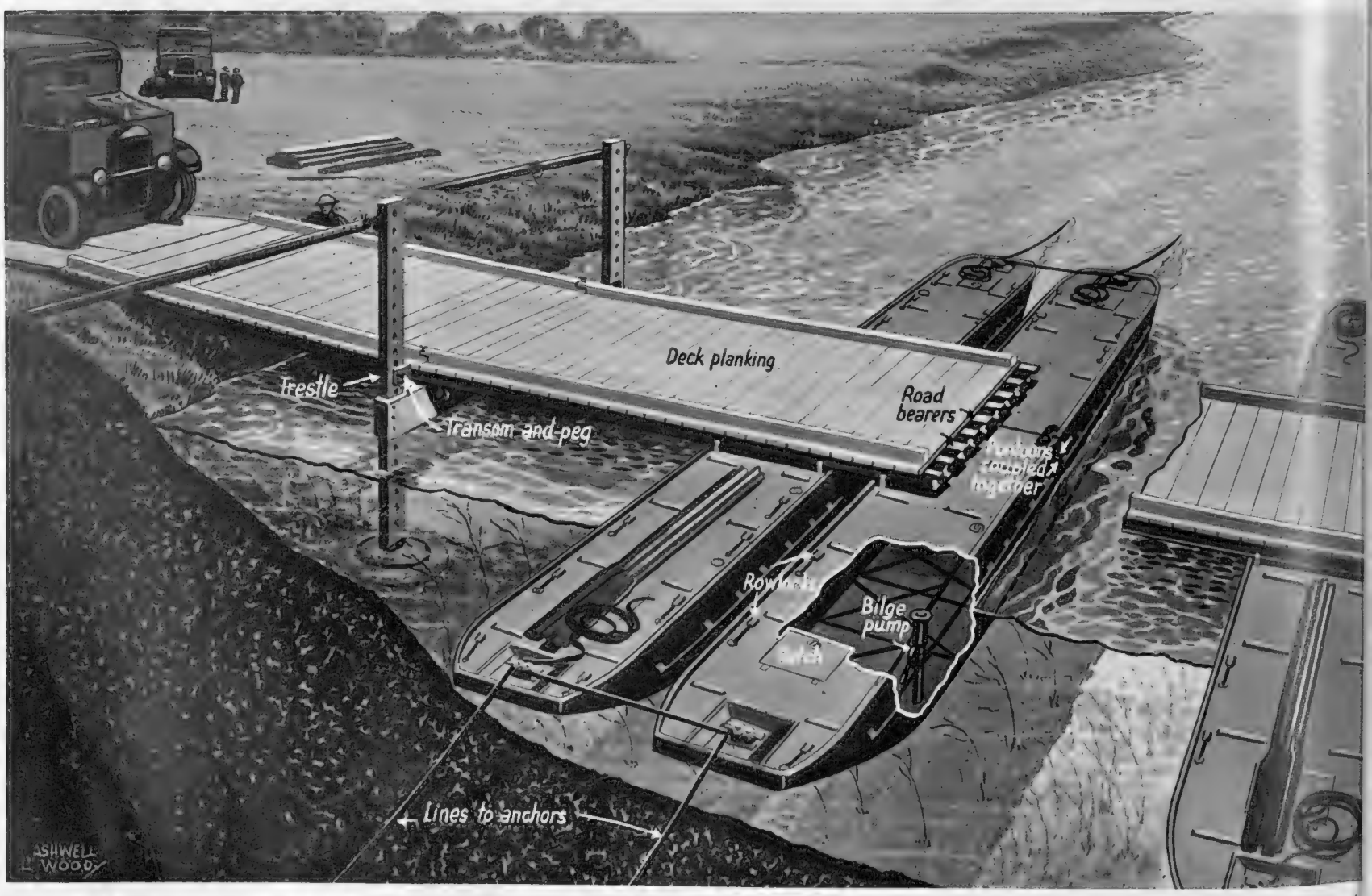


A SECTION OF THE BRIDGE: This shows the planking or deck, and also the spacing of the box girders. The decking is 8 ft. 6 ins. wide, and will take a lorry with a 5-ft. wheel-track

Above—**THE SMALL BOX-GIRDER BRIDGE WHICH**

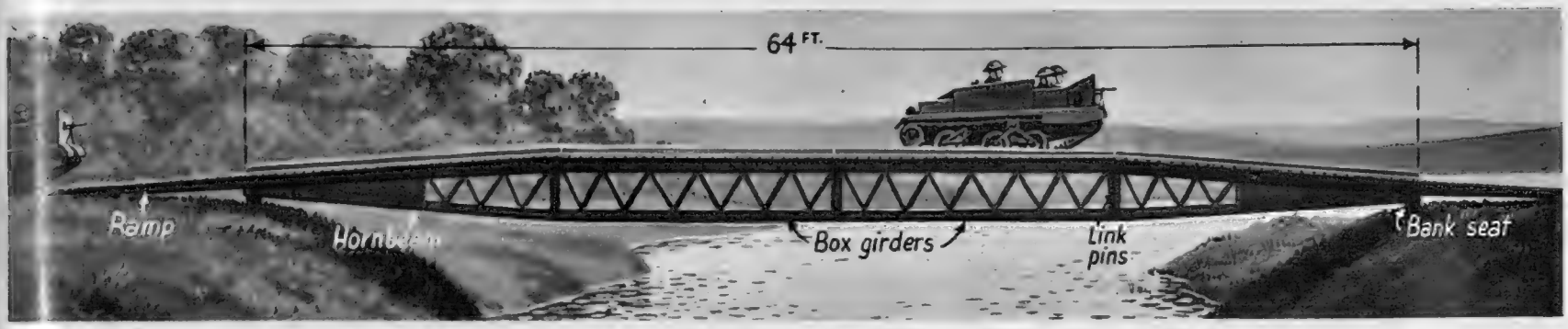
The completed span, with launching nose attached, is pushed out on rollers across the gap to be bridged, and a number of men act as a counterweight on the same bank by bearing on a similar launching arm but without a wheel. When the launching nose touches the other bank some men cross the girder and place it in position. A second girder is launched about 4 ft. away; planking is placed across these two and the bridge is completed

On right—**A BROADSIDE VIEW OF THE BRIDGE:** This diagram shows the various parts. Two, three or four box girders can be used, but the load must be reduced for the longer spans



A REGULAR PONTOON BRIDGE, which is suitable for loads up to 30 tons and which consists of four essential elements: Pontoons weighing about 1,400 lb. each and 21 ft. in length are anchored at intervals across the river with their keels in the direction of the current. Cross beams or road bearers link the pontoons, and planks are laid across to carry the roadway. A trestle is placed near the bank at each end. The pontoons are ferried or towed into position

HAS BEEN DESIGNED TO CARRY A THREE-TON LORRY ACROSS A SPAN OF 64 FT. It is intended, however, that the bridge should only carry one vehicle at a time. It is speedily constructed in sections, and launched nose-first, as shown above



THIS IS THE LATEST GERMAN METHOD of bridging a gap in an existing bridge as used in Russia: The new section is constructed on the spot and pushed out across the stream on rollers. A derrick and tackle erected on the far side now takes the load, lifting and pulling at the same time. Concrete counterweights are used for maintaining balance, as preventor tackle (*see diagram on following page*) does not appear to be used in this method

BRIDGE BUILDERS in BATTLE DRESS

By Bernard Hogben

MARSHAL BUDENNY is reported to have withdrawn his army in the Ukraine behind the river barrier of the Dnieper. This fast-flowing river has few bridges, so before the highly mechanised Nazi hordes can renew the battle they must build them.

German soldier-engineers are trained with the same methodical care as the other units of the Nazi fighting forces. In planning the campaigns in Poland and France the High Command gave very careful consideration to lines of communications for their advancing hordes. The engineers had been thoroughly rehearsed in replacing damaged sections of bridges which would almost certainly be blown up by the retreating foe. Prefabricated sections were, in many cases, prepared so that they could be dropped into position, ready for the rapidly advancing mechanised forces.

Under cover of smoke-screens and other well-thought-out tricks the Nazi engineers manœuvred their pontoons into position to make light bridges, thus enabling infantry to rapidly pursue the retreating French army.

Germany has always specialised in heavy engineering. Her bridge-building soldiers have been very skilfully trained in peacetime to handle the massive steel girders with great speed. By preparing beforehand the vital sections of essential bridges in the path of their troops the engineers have become an advance guard that is always ready on the scene to hoist and push the enormous sections of the temporary repair into position.

When a military bridge is needed under war conditions the job is urgent. The men who carry out the work must be so skilled that they can do the job under fire. Every minute saved may mean the difference between success and failure of the Commander's plan.

That is why units of the Royal Engineers are in training in various parts of the country, preparing for the tasks that lie before them. Improvisation and experiment lead them to try out many ideas and devices for meeting new conditions.

A NEW TYPE OF BRIDGE under construction for the British Army

THE "DERRICK AND PREVENTOR" METHOD OF LAUNCHING: The Hamilton trussed girder bridge consists of two spans each weighing 27 tons and 140 ft. in length; these form the main part of the bridge. A double derrick and winch is employed to pull the girders across a river. At the opposite end is fixed a cable pulling the girder downwards at that end and thus preventing it from toppling when past the point of balance, which is the stage shown in the upper drawing. This is known as the "Derrick and Preventor" method

Both types of bridges already described can be brought to the site with very little transport. There is a third pontoon construction, however, that requires a fleet of lorries for its mobility and needs fairly good approaches for the thirty tons weight it is capable of carrying.

Equipment for this type of construction necessitates three essential parts. Wooden pontoons weighing about 1,400 lb. each and 21 ft. in length are anchored at intervals across the river, their keels pointing in the direction of the current. Cross beams link the pontoons, and planks are laid across these to carry the roadway. Four methods of assembly are employed. The simplest adds successive stages as the pontoons are ferried into position and the roadway laid, until the river has been spanned. Another method is to build the bridge and gradually push out each section until the further bank is reached. Again, complete sections may be assembled on the bank, floated into position, and connected together. The remaining method is to assemble sections along the bank of the river and allow the current to swing the completed bridge into position.

For semi-permanent bridges, capable of carrying really heavy loads, the Royal Engineers use girder construction. The lightest type will span 60-70 ft. and is easy to handle. It can be erected quickly by cantilever launching and handles a considerable load. For gaps up to 120 ft. there is a heavier type. The engineers in battle dress are so expert that they can build this type under gunfire. The heavy girder type of military bridge is suitable for almost any load. Much more of a permanent construction, this kind takes four to eight days to erect. The sections from which it is made consist of skeleton steel boxes made up in girder form.

Any length or breadth of roadway can be built with this type of construction. Various methods of launching the girders are employed, either by cantilever or derrick. Each girder is used as a counterweight for the next when the cantilever principle is employed, and the last section is rolled into position.

One unit of the regiment has recently been experimenting with a new type of heavy bridge whose truss girders are launched by what is known as the "Derrick and Preventor" method. This employs the winch of a derrick to pull the girders across the river. So that they do not topple when passing the point of balance, a cable, operated by a winch, is connected to the other end.

Each of the double truss girders weighs 27 tons, and the 140-ft. length that they measure forms the main part of the bridge.

When called upon to construct the heavier kinds of bridges the R.E.s often have to undertake additional work. Approaches may need strengthening to carry heavy traffic, and where damage is due to enemy action on an existing bridge they may have to put back a section which bombs or gunfire has destroyed.

The Royal Engineers have fathered most progressive ideas introduced into the Army. As military builders they were given the job of constructing the Great Exhibition of 1851

"COMPOSITE BRIDGING," when the engineers have to use any material which is available locally

Pontoons may be lashed together to make rafts which can be used to ferry guns and small tanks across water. If the experiment succeeds another technique is available for instruction in the training units.

Equipment for army bridge-building is divided into two classes, depending on whether heavy or light loads are to be transported, The first group for carrying men and light material rest on the surface of the water. Girder types which can be thrown across a gap can be assembled in a surprisingly short time and constitute semi-permanent links between opposite banks, capable of carrying very heavy loads.

Simplest type of military bridge, used for reconnaissance and small bodies of troops, is the kapok assault bridge. It consists of canvas-covered floats filled with kapok, and trench boards. Handles are attached to each side of the floats and a metal plate or straps are provided so that duck-boards can be rigidly fixed to the upper surfaces. The whole of the assembly can be carried out on the river's bank, a man on each side of the float lifting each section to the water's edge and pushing out into the river.

For heavier work collapsible rubber boats take the place of the kapok floats. Weights of from five to nine tons can be transported over a bridge of this kind. Trestles are built at the bank approaches to the bridge and the superstructure consists of 3-in. planking. By decreasing the distance between piers the bridge will carry loads up to the higher figure.

THE INFANTRY BRIDGE, built of planks placed on kapok floats. By this method the advance guard can cross a river obstacle very quickly

THE BRIDGE WHICH WAS BUILT ACROSS THE AWASH RIVER during the advance into Abyssinia: The sections from the old bridge were erected on the site together with a central concrete support and two abutments which terminated the new level of the railway on either side. Roller bearings take the load on these abutments and also allow for expansion and contraction. The main span was launched by the cantilever method, sandbags being used as a counter-balance. Much credit is due to the engineers for a very ingenious piece of work, especially considering that all the material used was from the old bridge, and that they found a much lower level for the site

A view from the air of a BRITISH ARMOURED DIVISION drawn up for inspection by H.M. the King

BRITAIN'S ARMOURED DIVISIONS

Reviewed by the King a Few Days Ago

SOME OF THE MEDIUM-SIZED TANKS PERFORMING WARTIME MANŒUVRES during the King's inspection of the mechanised British units

THE ASSEMBLED TANKS STRETCH AS FAR AS THE EYE CAN SEE DURING THE REVIEW: Hundreds of them were on parade—of all shapes and sizes and purposes

THE KING TAKING THE SALUTE: With him is the Divisional General; and in the background (on left) the Duke of Gloucester

On Friday of last week H.M. the King inspected one of Britain's new Armoured Divisions. The occasion was the greatest concentration of armoured land forces ever seen in this country: during the inspection which preceded the march-past, hundreds of tanks were visible wherever the eye looked. The King was accompanied by the Duke of Gloucester, and he was received by General Sir Alan Brooke, Commander-in-Chief of the Home Forces, and by Major-General G. Le Q. Martel, of the Royal Armoured Corps. Valentine tanks, armoured cars, motorised infantry, anti-tank weapons, field artillery, Royal Engineers, supply, medical and signal units were all included; whilst overhead roared squadrons of aircraft. As soon as the inspection was over, the whole division swung into movement for the march-past. The whole spectacle was a wonderful demonstration of the manner in which the factories of Britain have responded to the call for fighting vehicles of all descriptions

OTHER THINGS THAN WAR...

Hoarding Papers; and Hens; Crime Fiction in Wartime and Press Obituary Notices

HOARDING.—As the generations pass, and my own contemporaries among my family pass, gradually there come into my hands, docketed and undocketed, arranged or haphazard, the hoarded documents of five generations of inveterate hoarders. To-day my room is piled high with despatch-cases containing dusty files of papers and letters, and, worse still, the golden curls of the four-year-olds, from my great-grandfather's hair to my own. A baldheaded, middle-aged man sitting in wartime in a war-mortgaged room, faced suddenly with his own four-year-old, six-inch golden curls! It cannot, it must not, be! We must clear the decks. A sense of the past is good. I doubt whether my children have it or, if they have it, whether they will be able to afford the luxury of it. Bitter as it is to me (who have lived in, on and by the past, as revealed in old family documents), I must be the one to end this hoarding and destroy the vast accumulation of generations of an ordinary family of Englishmen. Yet I cannot go the whole hog. Heaven grant me, on the first available rainy day, divine powers of judgment and selection!

I have the love-letters written before the marriages of my great-grandparents, grandparents, parents and my own. Shall I keep one letter from each? I have perhaps 200 letters written to my grandfather by his boon companions, Lord John Russell, the Foxes, George Anson, Lady Jocelyn Dalhousie and a score more—dead controversy, forgotten gossip, of no historical importance to-day. Here is my great-grandfather angling for promotion; my grandfather refusing in noble dignity the offer of a K.C.B. by Mr. Gladstone; Mr. Asquith offering my father his K.C.B.; letters regarding my brother's Egyptian honours. Will my children wish to read these letters? There are old rhymes, lampoons, *vers de société*, pedigrees, evidences concerning "mystery" great-aunts alleged to have been daughters of George IV.

Ought Mary Anne Douglas—who the deuce was she?—to have been acknowledged as really *more* legitimate than Princess Charlotte? Most convincing evidence is in my boxes, but it is better in the fire. And shall I still preserve £5,000 worth of share certificates in the old London and Globe, bearing the autograph of Whitaker Wright and one of his nobly-born pawns or directors? Yes, it will be a rainy day well spent if I can succeed in reducing by half the *damnosa hæreditas* of my children contained in these twenty despatch-boxes.

At least they will know from my notes that an experienced editor went through the papers before destruction, and burnt nothing that could throw new light on history.

But to me it is a bitter duty. For to me the past means more than the present, or the future.

Crime Fiction and War.—It was interesting to learn that statistics sent from a prisoners-of-war camp in Germany showed that crime fiction had little or no appeal for our men. Novels and biography cover the requirements of the readers. There is nothing strange in that. It does not imply that the "crime wave" in fiction, which had risen to such heights in 1939, would have spent itself by now if normal times had continued. It merely proves that war produces a new attitude of mind and demands different mental restoratives in reading matter. In peace, we enjoy fictional horrors and tales of murder and corpses. In war, we have horrors and corpses to spare in the ordinary way of business. Detective fiction stimulates and keys up the mind lapped in security, but the mind strained with war realism and nerves taut with war anxiety require the relief of quiet fields and by-paths and backwaters. It is every old soldier's experience that in war his mind needed, even craved for, the village scene, the curate's love-story, the assembly ball, the impossible security and snugness and smugness of Jane Austen's world, all those scenes and annals as remote as possible from modern war and all which it implies.

If you throw at my head Buchan's *Thirty-nine Steps*, which set a fashion in the late war, I reply Buchan's thrillers were romances, not realism, which is the basis of modern detective fiction. He was of the school and genre of Scott, not of Gaboriau. There is no doubt about it. Sayers and Christie, Cole and Crofts and Rhode are admirable stimulants in times of peace, when we are mad enough to crave for a little horror and excitement. In war we have a bellyful of death and all that, and we pine for pastoral loves, for Corydon and Phyllis, and for worlds as remote as possible from our own grim, realistic nightmare of existence.

Fowl.—If there be a bird which I detest more than the jay, it is "that distressing biped" (as St. Ives called it), the hen. How I came to "look after" a houseful of fowls I do not know. I never intended to do so. I expected my wife or the gardener or my children, as they grew up, to take on the task. But it was not so. No one seemed to have a vocation, and the job has been mine—a before-breakfast daily chore—on and off for a dozen years. I have kept about twenty-five to thirty hens—and their records; and until this year of poultry disgrace, those records have been good. Now they are incredible, disastrous, unimaginable. Once only have I in the past ten years recorded no egg during twenty-four hours—in November 1940.

Now, if you please, I have recorded NIL for twenty-six days on end in August! True, my numbers have fallen. Death from starvation has reduced my numbers to below twenty. But they are not old birds and they are over their moult. None need tell me about kitchen scraps or garden greens, or boiled nettles or hips or lupins or buckwheat. I have tried all. I collect all. I boil all. Nothing will do. The birds need wheat and maize and *decent* mash, not a dozen grains of oats per head and a handful of sawdust which is their ration.

Obituary Biography and the Press.—One of the features of the daily Press most appreciated by the public, in my view, is efficient biographical sketches of the careers of notable or well-loved figures in public life whose deaths are announced in other columns. For many years it has struck me as strange that only one London daily and two or three of the great provincials take this business seriously and "cover" in biographical notices the deaths of a wider circle than patently public figures.

I know that the punctual preparation of "obituary" files against the deaths of the subjects dealt with is an expensive and elaborate business; but, because it is a subject of great importance to the social historian and one of considerable topical interest to the newspaper reader, it surprises me that there is no competition in Fleet Street in this branch of daily journalism.

Such organisation as exists is open to criticism and might well be improved on. For such sketches, while they should be just, true and authoritative, should never show partiality or favouritism. The biography of an eminent literary man, for example, may be undertaken very properly by a contemporary literary light. But if that contemporary felt jealousy towards his subject or considered his subject's merits had been overvalued, such feelings should not show too clearly in the notice. Indeed, in no branch of journalism should the editor's ultimate responsibility be more rigorously exercised

"De Mortuis Nil Nisi Bonum" is a slogan which is damaging to history, but spikiness or favouritism or victimisation are detestable and hardly less damaging to historical truth. In a word, there is to-day in journalism a great opportunity for that keen and healthy competition in a valuable and popular branch of journalism which might do much to raise what is at present a one-man show in Fleet Street to a higher plane.

There appears at present to be no criterion of what is fit notice of a deceased public figure, save the prejudice or favouritism of the editor. This deceased person may fill the column for days on end with "supplementaries" by his friends and relations; that one, every whit as widely known and loved, may be curtly dismissed with eight lines of print.

It is high time that the reading public had other sources than one from which to draw consolation and information on the deaths of men and women whom they respected and loved.

J. G.

ETON COLLEGE NOW HAS A SECOND-HAND CLOTHES POOL: The clothes-rationing problem at Eton is being solved by a second-hand Clothes Pool which has just been established there. This is to be run by Eton tailors who will act as agents for the College. Boys leaving, and those who grow out of their suits, will take them to the tailors, who will renovate them and offer them for re-sale. There are now a large number of second-hand tail-coats, jackets and trousers which can thus be purchased without coupons and at small cost

THE POSTGIRLS OF LONDON CITY: A sight which is daily becoming more familiar to Londoners—the romantic-looking uniform of the postgirls who are replacing men called up for military service

GREAT ACTIVITY at SINGAPORE

IN ONE OF THE WORKSHOPS AT THE GREAT NAVAL BASE : Native labourers hard at work in the superbly equipped foundry

A MACHINE SHOP, laid out on up-to-date lines, where a great array of the most modern tools are operated by Chinese labour

NEW CONSTRUCTION WORK AT THE NAVAL DOCKYARD : On the left is the huge floating dock towed out to Singapore some years ago ; in the foreground great developments are under way and many new buildings are in course of erection

NAVAL VESSELS BERTHED IN HIS MAJESTY'S DOCKYARD AT SINGAPORE : Great reinforcements have been reaching our Eastern base over a period of many months, and the British and Empire forces at Singapore are now fully prepared for whatever may come

In a recent broadcast statement, the Commander-in-Chief in China referred to the increased activity which has been witnessed recently at the Singapore Naval Base. The pictures reproduced on this page are the first of their kind to be released, and they show naval vessels refitting or in dry-dock and general views of the huge and well-equipped workshops attached to the Dockyard, where many Chinese and Malayan employees are assisting in naval work. The Naval Base has been developed over a period of years, and vast sums have been spent on it. The installations are still being added to, as one of the pictures shows. Meanwhile, Singapore has of late witnessed a greater and greater accumulation of strength in the shape of ships, aircraft and men. To-day it may be said that Singapore is an almost unconquerable Bastion of Empire in the Far East

The World of Books—By Vernon Fane

PERSONAL EXPERIENCES VIE WITH FICTION

Inside a British Internment Camp; Sir Hugh Walpole's Last Novel; The Bedside "Esquire"; Journals of an Old Sea-Dog

THE problem of the "friendly" enemy alien has undoubtedly been a difficult one. Perhaps in the first nine months of the war we were inclined to be a little too easy-going about it all. Then, following the fall of France, with the menace on our doorstep and the horrible examples of treachery and fifth-column activities in the conquered countries fresh in our memories, something had to be done. There was also the problem of the newly belligerent Italians.

The story of the rounding-up and internment of these people is told at first hand by one of them, Mr. Alfred Lomnitz, in **NEVER MIND, MR. LOM!** (Macmillan. 7s. 6d.). Mr. Lomnitz is a middle-aged German artist, who reveals that he fell in love with the English way of life about eight years ago, since when he has spent most of his time in this country. "Never mind, Mr. Lom," said his Cockney charwoman on the day they came to take him away, and the kindness and tolerance implied in that remark supported him throughout his enforced confinement.

With him went all sorts and conditions of his countrymen, some of whom groused and grumbled, some kicked up a row, but most of whom accepted their fate philosophically and realised that in the circumstances the authorities had little choice in the matter.

Under the stress of hasty improvisation and in charge of people of small resilience and less imagination, the conditions in the beginning were not too good. The food was bad and badly served, although it was within the memory of many of the internees that, by contrast with the German variety, these camps were highly desirable residences.

The terrible incident of the *Arandora Star* brought horror and distress to these people, who lived in a nightmare of apprehension when the lists were being compiled for future drafts for overseas. On his release Mr. Lom was to receive further evidence of the sympathy, kindness and tolerance of all classes of English people, from the station porter who gave him a shakedown in a first-class compartment for the night, and the railway shunter who went cheerfully about his work during an air raid, to the chaps in the village pub. "They seemed genuinely delighted to see him. Their friendliness was overwhelming—it seemed greater than it had been before Lom's internment. At first they were extremely tactful; they obviously knew all about it and there was a general tacit understanding about it. They did not refer directly to it very much. But, presently, in a most natural way, they made sympathetic inquiries, and very soon Lom felt like a hero. He was a man who had suffered, and no Englishman can withhold sympathy for long."

It is an interesting book, telling us a good deal about ourselves, and at the same time revealing certain national traits. There is a good deal of philosophical moralising, for instance, of a kind which most Englishmen might feel was shy-making, but at the same time there is a real and genuine appreciation of the kind of difficulties which brought about the almost intolerable conditions to which these friendly people were subjected. Most people will like this book for its quiet air of understanding, and for the author's ability to extract humour from the most improbable situations.

THE BLIND MAN'S HOUSE (Macmillan. 8s. 6d.) is Sir Hugh Walpole's last novel, and is an excellent example of the kind of book which it was Sir Hugh's habit to interpose between his work on wider and deeper themes.

Julius Cromwell, rich, cultivated and sensitive, was blinded in the last war. He married, for the second time, a woman some fifteen years younger than himself, and went to live in the house of his choice in the village of Garth in the Polchester country.

It was very much a love match. Julius, whose blindness had put an acute edge on most of his senses, had a great deal of personal charm both of mind and of body. He was the kind of man who secured devotion from all with whom he came into contact, and particularly with servants. Celia was not so stable a character, had been badly brought up, was inclined to be hot-tempered, and inclined also to lean too heavily upon Julius.

Through his blindness, Julius tended to be obsessed by a kind of spiritual egotism, which gave him a sort of "apartness" which baffled and frustrated the impatient Celia. The author maintains that it was his blindness which would not surrender to her, and there grew up between them an uneasy antagonism, which reached a dramatic climax on the day when Julius discovered that Celia had been kissed by Jim Burke, whose presence in the house was on an incongruous basis.

Julius's jealousy takes the form of a further retirement into himself, and Celia, in a panic, runs away and nearly crashes the whole affair. In the end, however, Julius is able to resolve his own affairs as well as hers, and to enable them both to escape into a more secure happiness away from that house.

There is nothing very profound in this theme, but it is at the same time a fairly acute study of two types who learn by trial and error how to resolve their difficulties. Like most of Sir Hugh Walpole's novels, it is full of careful and convincing atmosphere and of a number of minor characters who add verisimilitude to the story's action. There is a handsome, easy-going man with an energetic, domineering wife; three typically interesting Walpolean children, and an equally delightful Walpolean dog. There is also Katherine Mark, grown a little older, but straight from the pages of *The Young Enchanted*. It is sad to think that there will be no more books in the familiar green and gold bindings from this gifted pen.

A MEETING OF THE B.B.C.'S "BRAINS TRUST": This terribly talented band meets every Sunday evening to put the world right about a variety of subjects. From left to right are Donald McCulloch (the Question Master), Howard Thomas (the Producer), Professor C. E. M. Joad, Professor Julian Huxley and Commander C. B. Campbell

To the sophisticated who are in the habit of devouring American magazines, **THE BEDSIDE ESQUIRE** (Heinemann. 10s. 6d.) will need no introduction, except perhaps from Mr. Arnold Gingrich, the editor, who very ably presents it in the following terms: "A publisher," says Mr. Gingrich, "refused to allow one of his authors to be represented in this book on the grounds that it would not be dignified for a writer of his stature to be included in 'a bedside anything.' And that's the only reason why this book, which would otherwise need no introduction, must be introduced, if not explained, herewith.

"This book is not a bedside anything. It is a bedside something. Something to have at hand, say, on your night table, to be picked up when you want to read for ten minutes or an hour. It is a big assortment of some of the best of Esquire. . . . It's designed for off-and-on sampling and savouring. That's why it has been deliberately chopped up into four separate sections, each calculated to be a more or less exact fit for one or four moods in which you may pick this book up."

Those who are not acquainted with the magazine may like to know that among the book's contributors are to be found such names as Ernest Hemingway, John Steinbeck, D. H. Lawrence, André Maurois, Havelock Ellis, Vincent Sheehan, George Jean Nathan, John dos Pasos, Theodore Dreiser, Erskine Caldwell, William Macfee, Louis Paul, Felix Salten, and so on. In all there are about seventy contributors. A better bedside book it would be difficult to imagine.

Charles Nordhoff, who, with James Norman Hall, made a world-wide success of *Mutiny on the Bounty*, has produced a very remarkable book, **I SERVED IN WINDJAMMERS** (Chapman and Hall. 15s). The book is not by the Charles Nordhoff we know, but by his grandfather, of the same name, who died in 1901. It is more than 100 years ago since the author of these works (for there are really three books in one) first ran away from home to go to sea in a Yankee man-o'-war. He declares that they were written to express his disapproval of the sailor's career, and to warn young readers against following his example, and on this note of serious objectivity the whole tale of life and adventure in the old windjammers runs. Charles Nordhoff's talented grandson has, by judicious selecting and editing, compressed these reminiscences of an old sea-dog into one great book of the sea.

EVENING ENTERTAINMENTS

Reviewed by Philip Page

NEARLY a year ago, when things in London were difficult, to say the least of it, there was a boom in ballet. The Vic-Wells Ballet, orchestraless, drew crowds to the New Theatre, and have recently had another successful season there, with an orchestra, albeit a little one. They even produced a new ballet, *Orpheus and Eurydice* (which was about the dullest thing ever did I see). The novelties produced, on the other hand, by the International Ballet, now at the Lyric, whose season has been so successful, are not at all dull.

This venture is in itself a novelty. I saw the company a couple of months ago, when they were having a preliminary trip at the Brighton Hippodrome, and was much struck by the ability and originality displayed. Also, I must confess, by the air of lavishness. In these days of difficulty it is a pleasant surprise to find no damned economy apparent—large orchestra, ably conducted by M. Serge Krish, expensive decor and costumes, and everything de luxe as you please. This may not be in itself much of a virtue, but it is important when backed up by such admirable dancers as Mlle Nina Tarakanova, Miss Mona Inglesby (who is the prime mover in the whole concern), Mr. Harold Turner and M. Pavikoff. The *maître de ballet* is M. Idzikowski, whom more mature balletomanes will remember in those old and great days at Covent Garden, which seem rather far away. I recommend a visit. I even saw a man there wearing tails and a white tie.

The Stoll Theatre in Kingsway is one of the largest and loveliest theatres in London, or even in Europe. It was built about thirty years ago as an opera-house, by the late Oscar Hammerstein, of New York, whose bust was over the main entrance, though not for long. As a rival to Covent Garden, it failed mainly because it did not possess Covent Garden's superb acoustics; but I remember some good performances there, notably of Charpentier's *Louise*, that picturesque and melodious story of the Paris that was. The place then turned to revue, one of its stars being the once-celebrated American, May Yohe, of "Hope Diamond" fame; she married a duke's son and had a strange and tragic career. For twenty years or so—in fact, until a fortnight ago—the place was a cinema. It is now a music-hall, and as I sat in the stalls the other day, I once more admired its size, grace and general magnificence. But there was little else to admire. This is a pity, since, with the Empire, Alhambra and London Pavilion cinematised, the Holborn Empire closed, the Oxford and Tivoli vanished and the Coliseum and Palladium occupied with musical shows, there is room for a first-class variety entertainment in London.

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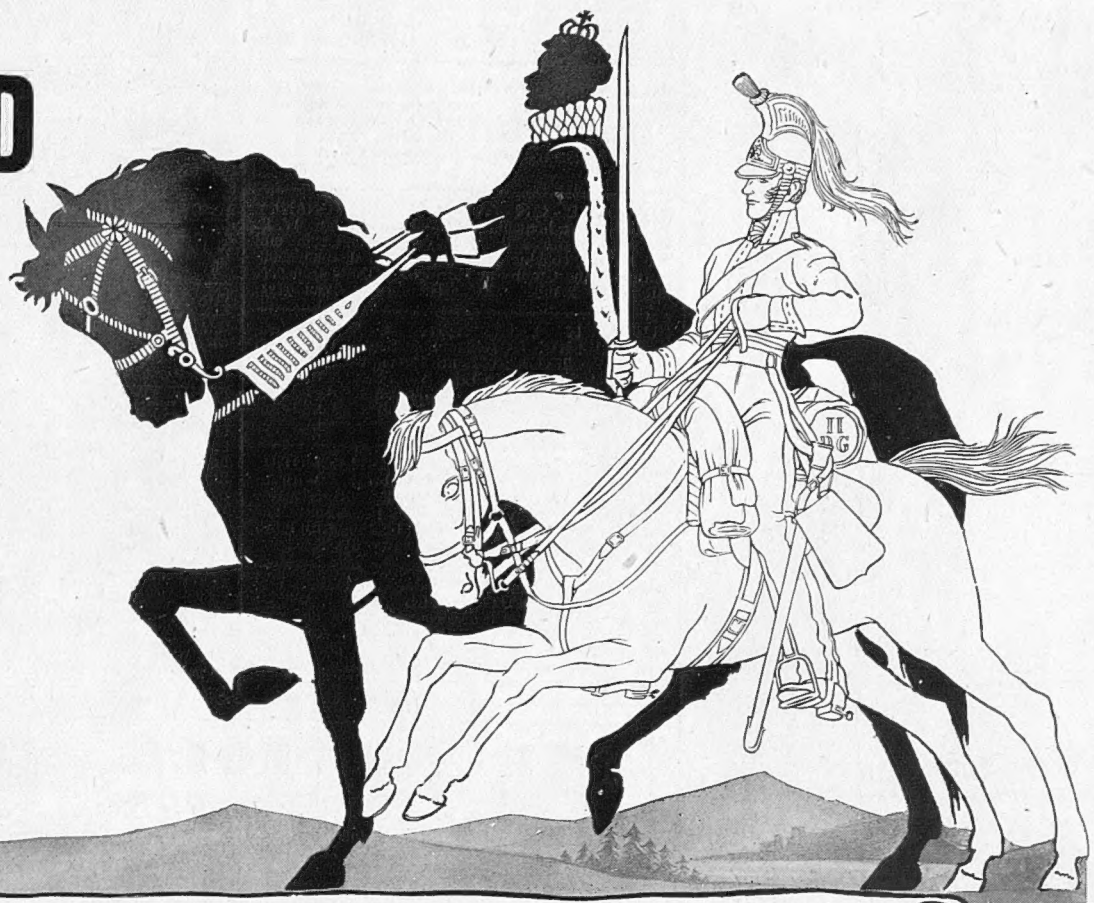

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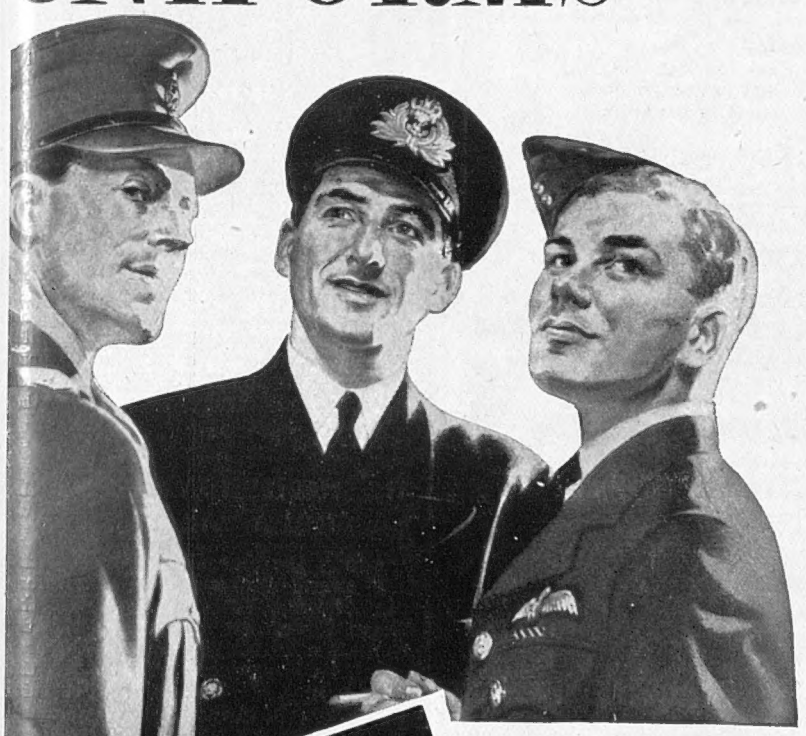

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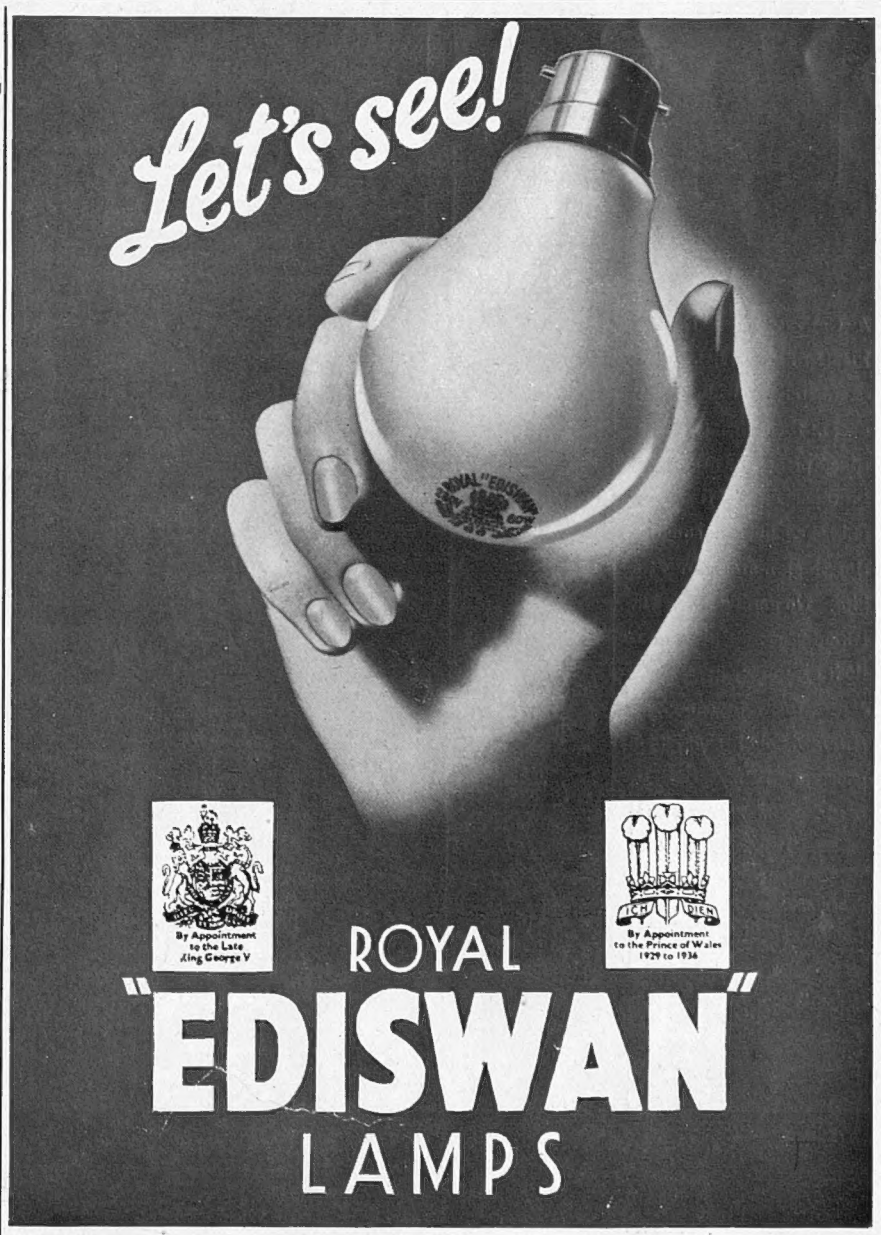

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BY ASHLEY COURTENAY

Owing to rationing of paper and the demand on our editorial pages, it is necessary to omit from time to time Mr. Ashley Courtenay's usual weekly article. We would, however, emphasise that his services are always available for advising SPHERE *readers by post of hotels, both large and small, known to him personally. Letters, accompanied by a stamped, addressed envelope for reply, should be addressed to him c/o The Editor,* THE SPHERE, *Commonwealth House, 1, New Oxford Street, London, W.C.1. Personal and telephone inquiries, however, cannot be accepted. The undermentioned hotels are personally recommended by him*

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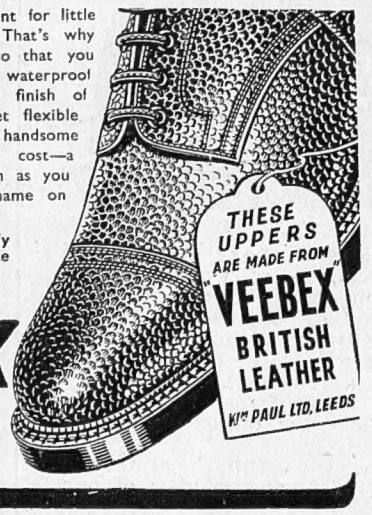

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ON THE ROAD

By ASHLEY COURTENAY

AUTUMN and winter quarters are now the main concern of hotel-seekers, and I can put readers in touch with a number of places where there is limited accommodation at prices ranging from 4½ guineas. It is but rarely that I hear of anything below this figure.

However, I have just had wind of a two-bedded double room available from September 20 at a small and charming guest house called Staddles. It is to be found at Bicknoller, an unspoilt village which nestles at the foot of the Quantocks in Somerset. The people who rent it will have the use of the house sitting-room almost to themselves. The price is 3½ guineas each. Write to Mrs. Stowe, Staddles, Bicknoller, near Taunton.

Travellers these days may easily find that they cannot get a meal on the road unless they make prior arrangements. Though many hotels still have on their boards "Open to Non-Residents," this really refers to pre-war days. Recently I have had two instances of my luck being in round about one o'clock. The first was at Hitchin, in Hertfordshire. After a morning of bus-hopping I had an hour to wait at this market town, which was much in prominence in coaching days. Here I discovered the old-world Cock Hotel, where I had the best and speediest lunch I have experienced since restrictions became acute.

My second discovery, doubly welcome as the day was cold and wet, was a Trust House, the Chequers at Newbury, on the Bath Road. Arriving about 1.30, we dubiously inquired if it were possible to get any lunch. "Certainly," was the encouraging reply, and without any waiting or fuss we enjoyed a hot lunch, slick service and a modest bill. Our one qualm was that the 10 per cent. added to the bill for tips seemed insufficient.

Another problem one encounters on the road is that of tea. I have often been accused of suggesting a halt for tea, but never finding anywhere at which to halt. Many of the small tea places are closed for the duration, whilst some of the larger hotels do not make a feature of afternoon tea. One solution, of course, is a Trust House, where even in wartime 1s. 3d. seems a modest price. But I have recently found an alternative. It is the policy of the P.R.H.A. to encourage their managers to develop their tea trade, and most of these small inns have a tea-room where a homely repast is readily obtainable. The P.R.H.A. inns are to be found in practically every county, and are especially strong in Shropshire.

The first fine day after an inglorious spell when one dare not sally forth without a raincoat found me at Dunster, and I envied those who were spending their leave in the historic and hospitable surrounds of the Luttrell Arms Hotel. Mr. and Mrs. Roworth have been managing this hotel from the day it was taken over by Trust Houses, Ltd., some thirteen years ago, and they have done much to build up its trade and goodwill. Dunster is the type of place where change is out of keeping with its surroundings. Long, then, may the Roworths reign.

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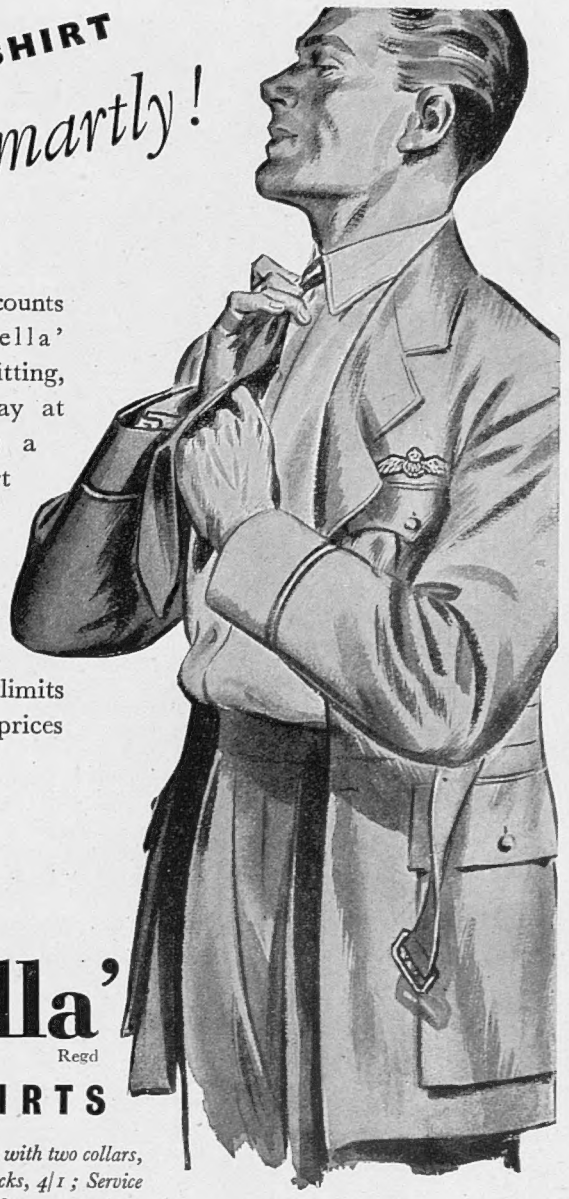

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